LESSONS IN HARMONY

BY

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Lessons in Harmony

COMPLETE

PARTS I AND II BY

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PREFACE.

The object of this book is to furnish a suitable text for the study of harmony, with illustrative examples, and a definite assignment of lessons.

It was neither the intention nor desire of the authors that it should represent a work covering the entire ground of harmonic structure. But their aim throughout has been to use only such material as is necessary to give the student a clear and intelligent knowledge of modern harmonic practices, and to enable him to continue the work by original research in the works of the masters. Emphasis is laid upon the value of being able to play readily, in any key, a large number of cadence formulae, and also the different modulations in parts three and four. For this reason the work is only partially prepared if the work at the piano is omitted.

Since parts I and II are also issued separately it has been necessary to duplicate the page and illustration numbering in these. A reference to anything in part I will always be accompanied by the words "Part I", when in any other part, the page or illustration number, only, will be given.

Parts I and II were prepared by Arthur E. Heacox, and Parts III, IV and V by Friedrich J. Lehmann.

Oberlin, Ohio, June 15, 1907.

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First Lessons in Harmony.

Lesson I.

Definitions.

A Tone is sound which has definite pitch.

A Note is a character used to indicate a tone, show its relative length, and its pitch by designating a degree of the staff.

The Staff is a collection of five parallel lines with the spaces belonging to them. Each line or space is called a degree.

A Clef is a character which causes the degree of the staff with which it is associated to indicate a certain absolute pitch. The treble, or G clef, causes the second line of the staff to indicate the first G above Middle C. The bass, or F clef, causes the fourth line to indicate the first F below Middle C.

A Key is a set or family of tones bearing a definite and close relation to one principal tone called the key-note.

The Key-note is that tone from which the other tones of a key are determined and which makes the best point of closing.

The Signature is the sign of the key, that is the sharps or flats or the absence of them at the beginning or division of a piece.

A Half-step is the distance from any tone to the next available tone either above or below. Half-steps are of two kinds, Chromatic and Diatonic.

A Chromatic Hale-step is one whose pitches are indicated by the same degree of the staff, e. g. c-c♯, or c-c♭.

A Diatonic Half-step is one whose pitches are indicated by adjacent degrees, e. g. c-d♭, or c-b.

A Whole-step is the distance from any tone to the next available tone ~~but one~~ either above or below.

A Sharp (♯) causes the degree of the staff on which it is placed to indicate a pitch a half-step higher than would be indicated by that degree without the sharp.

A Flat (♭) causes the degree of the staff on which it is placed to indicate a pitch a half-step lower than would be indicated by that degree without the flat.

A Double-sharp (𝄪) indicates elevation one whole-step reckoning from the unaltered degree, whether that degree has been previously sharped or not. A Double-flat (♭♭) indicates depression a whole step in the same manner.

A Natural (♮) used on any degree of the staff destroys the effect of all previous sharps or flats on that degree.

A Scale is an ascending or descending series of tones progressing by degrees according to a specified order or relation.

There are two classes of scales, Diatonic and Chromatic.

A Chromatic Scale is one which progresses always by half-steps and contains thirteen tones within the octave.

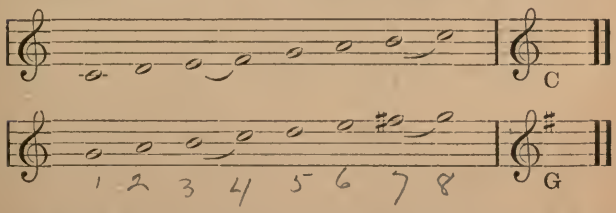
A Diatonic Scale is one comprising eight tones within the octave and progressing generally by steps and half-steps, with its degrees named in alphabetical order.

There are two classes of diatonic scales, Major and Minor.

A Major Scale is one whose third tone is two whole-steps, a major third, from the first, and whose tones stand in the following relation: 1—2—3‿4—5—6—7‿8, the sign ‿ indicating a half-step and — a whole-step. The fifth degree of any diatonic scale is the key-note of the following scale in sharps, and the fourth degree, the key-note of the following scale in flats.

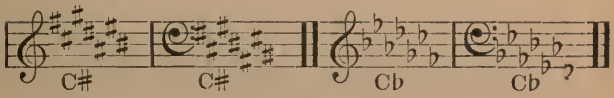
Written Work.

Write all the major scales to seven sharps and flats inclusive. Build each scale without a signature by using the necessary sharps and flats, and place the signature after the scale as in the model. Indicate the half-steps with a slur and use capital letters to indicate major keys.



The sharps and flats in the signature must always appear in the same order, reading from left to right, and care must be taken to allow plenty of room to make this order clear.

Signatures for C♯ and C♭.



Oral Scale Drill.

Be prepared to recite all the major scales as follows: Give the scale of A. Answer: a, b, c♯, d, e, f♯, g♯, a; signature, three sharps, f, c and g.

Lesson II.

Definitions.

A Minor Scale is one whose third tone is a step and a half, a minor third, from the first. There are three common

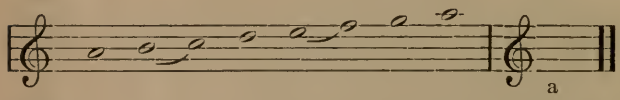
forms, the Original, Harmonic and *Melodic, the first two of which are important for present study.

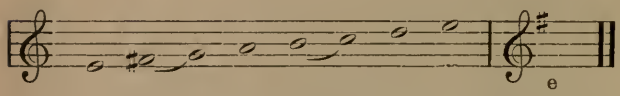
In the Original Form the tones are precisely the same as in the relative major key and therefore stand in the following order: 1—2‿3—4—5‿6—7—8.

Relative Keys are those having the same signature. The sixth degree of any major scale is the key-note of its relative minor and the third degree of any minor scale is the key-note of its relative major.

Written Work.

Write all the minor scales, original form, to seven sharps and flats inclusive, following the same general directions as in the first lesson. Indicate minor keys with small letters





Oral Scale Drill.

Review the scale drill of Lesson I. and recite the scales of this lesson in the same manner.

Lesson III.

The Harmonic Form of the Minor Scale.

The whole-step from seven to eight in the original form of the minor scale was not found satisfactory for harmonic writing. A remedy was found in chromatically raising seven, which reduced the distance from seven to eight to a

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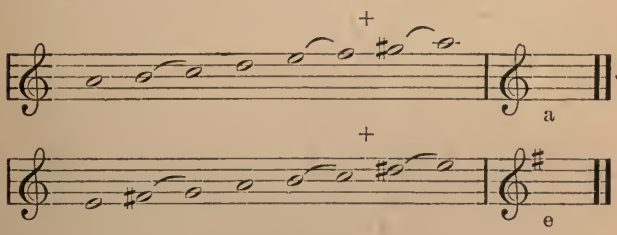
* The Melodic Form is left to later study because it has no direct application in the present lessons.

half-step as in the major scale. This alteration produced a scale which has become the basis of practically all modern harmony in the minor mode, and is called the Harmonic Form. The step and a half from six to seven is indicated by +. In writing this scale remember that alphabetical order is necessary, thus *g* cannot be written for *f*𝄪 in the scale of g♯. In keys of more than two flats a natural serves the purpose of a sharp in the other keys.

WRITTEN WORK.

Write all the minor scales, harmonic form, to seven sharps and flats inclusive. Indicate the position of all half-steps and use + to locate the step and a half.



ORAL SCALE DRILL.

Recite each major scale and its relative minor scale in the Original and Harmonic forms.

Lesson IV.

RAPID RECITATION OF THE MAJOR SCALES. 14

Recite the major scales rapidly, giving as many as possible in one minute. Model: g, a, b, c, d, e, f♯, g; signature one sharp, f. Carry out to seven sharps and seven flats.

INTERVALS.

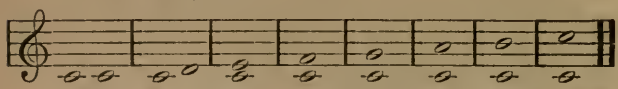
An INTERVAL is the relation which one tone sustains to another with regard to pitch.

A PRIME is the relation between two tones whose pitches are indicated by the same degree of the staff.

A SECOND is the relation between two tones whose pitches are indicated by adjacent degrees of the staff.

A THIRD comprises two seconds; a Fourth, three seconds; a Fifth, four seconds; a Sixth, five seconds; a Seventh, six seconds; and an Octave, seven seconds.

In the major scale reckoning from the key-note these intervals appear as in the following model, *P.* indicating perfect and *Maj.*, major.



P. Prime. Maj. 2. Maj. 3 P. 4. P. 5. Maj. 6. Maj. 7. P. Octave

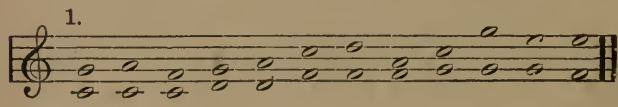
Write out in every major key, using no signatures but placing sharps and flats where needed. Write the interval names with every scale.

This model forms the basis of all rapid interval reading and should be memorized. Note that the prime, fourth, fifth and octave are perfect and the others, major. All perfect and major intervals can be read by this simple measurement in the major scale. Thus for example, a perfect fifth from F is C because C is five in the scale of F; a major third from E is G♯ because G♯ is three in the scale of E, etc.

INTERVAL READING.

Consider the lower note the keynote in the major scale and begin: C to G is a perfect fifth, C to A, a major sixth and so on. Write nothing in as an aid in reciting.

1.



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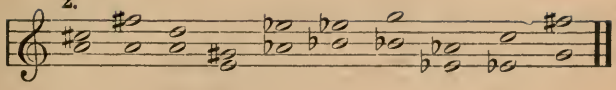

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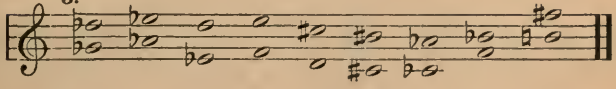

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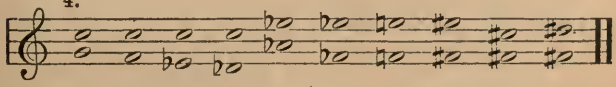
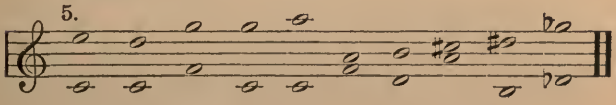


The intervals exceeding the octave are the Ninth, Tenth, Eleventh and so on, but the Ninth is usually treated as a second, a tenth, as a third, etc. Begin the following: C to E is a major third.

5.



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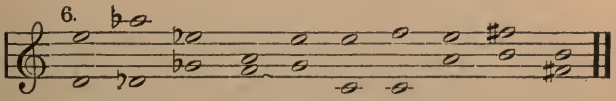
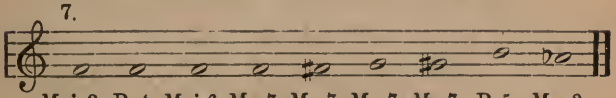


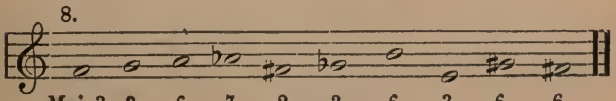
Name the upper tone but do not write it in.

7.



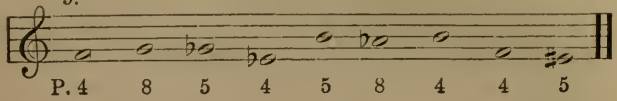
Maj. 3. P. 4. Maj. 6. Ma. 7. Ma. 7. Ma. 7. Ma. 7. P. 5. Ma. 2.

8.



Maj. 3. 2 6 7 2 2 6 3 6 6

9.



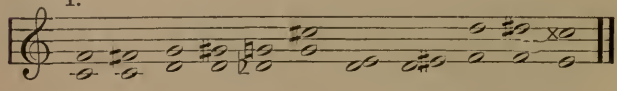
Lesson V.

Intervals Continued.

When any perfect or major interval is enlarged a chromatic half-step it becomes augmented, thus the perfect fourth, C-F becomes an augmented fourth if changed to C-F♯ or C♭-F; and the major second, C-D becomes augmented if changed to C-D♯ or C♭-D. In these alterations no letter may be changed for another, for this would not be *chromatic* enlargement.

Augmented Thirds and Sevenths do not occur in harmonic relations but every other interval has its augmented form. Read the following:

1.



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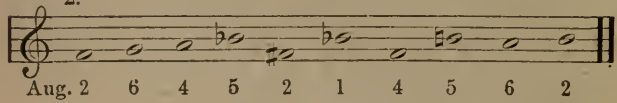
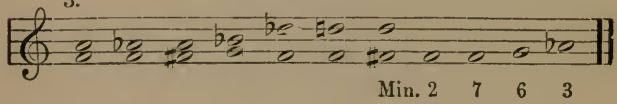


When any major interval is reduced in size a chromatic half-step it becomes minor, thus the major third C-E becomes a minor third if changed to C-E♭, or C♯-E. Perfect intervals never become minor. Read:

3.



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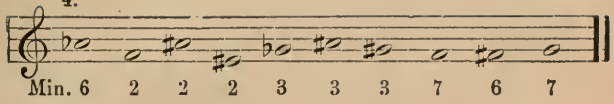
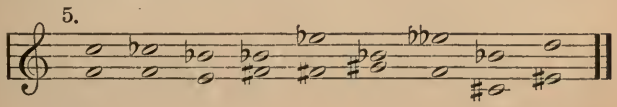


When any perfect or minor interval is reduced in size a chromatic half-step it becomes diminished.

Diminished Primes, Seconds and Sixths do not occur in harmonic relations. Read:

5.



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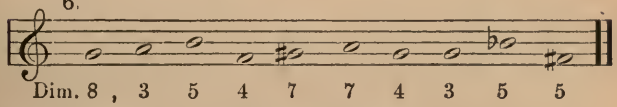
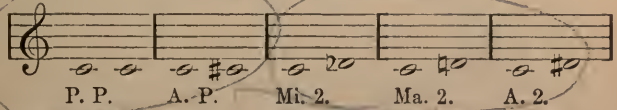
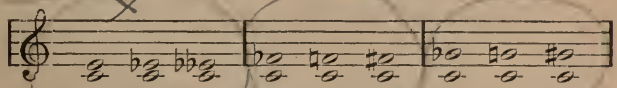
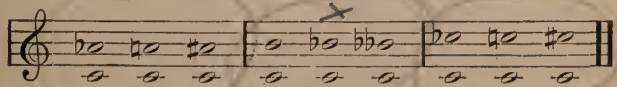


WRITTEN WORK.

Write all the intervals that occur in harmonic relations, using in turn E, F♯ and B♭ as the lower note in the same manner that C is used in the following model:



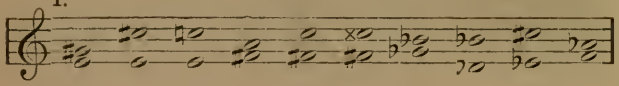




Lesson VI.

Interval Reading.

1.



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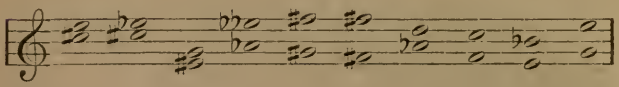

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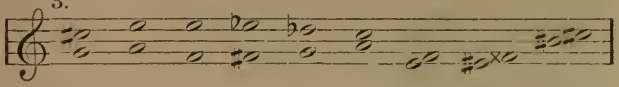

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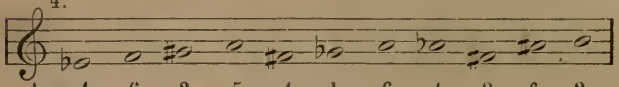
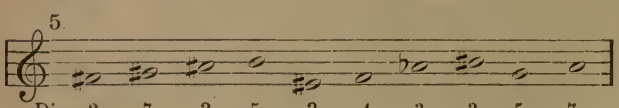


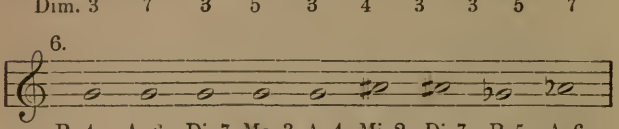
Aug. 4 6 2 5 4 1 6 4 2 6 2

5.



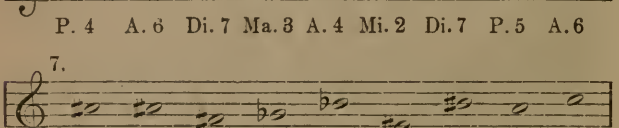
Dim. 3 7 3 5 3 4 3 3 5 7

6.



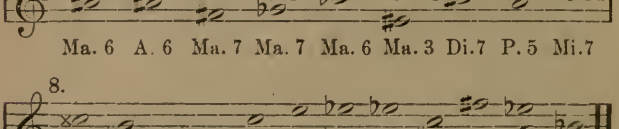
P. 4 A. 6 Di. 7 Ma. 3 A. 4 Mi. 2 Di. 7 P. 5 A. 6

7.



Ma. 6 A. 6 Ma. 7 Ma. 7 Ma. 6 Ma. 3 Di. 7 P. 5 Mi. 7

8.



Lesson VII.

Chords.

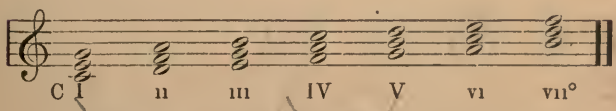
A Chord is a combination of tones sounding together and bearing a harmonic relation to each other. The simplest chord is the Triad which consists of a fundamental tone, called the root, with its third and fifth.

A Major Triad has a major third and perfect fifth

A Minor Triad has a minor third and perfect fifth.

A Diminished Triad has a minor third and diminished fifth.

A triad may be formed on each of the seven tones of the diatonic scale thus:

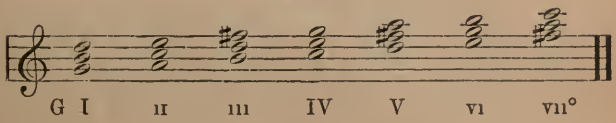


The triads on one, four and five are major, marked I, IV, V; on two, three and six, minor, marked ii, iii, vi; and on seven, diminished, marked vii°. These marks indicate the degree of the scale on which the root of the chord is found, and by their size denote the kind of triad. Note the special sign for the diminished triad.

Written Work.

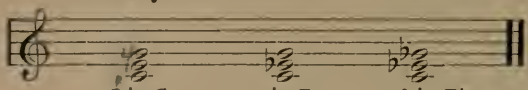
Write all the triads in the major keys to seven sharps and flats, and write the numerals under each. Place the sharps and flats in each chord where needed. Do not write the signature.

Model.



To Locate Chords.

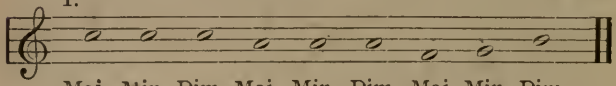
There are three major triads in any major key, namely, I, IV and V. To locate a major triad in all the major keys in which it is found, it is necessary to place it in that key which contains its root as one, then in the key where its root is four, and last, where its root is five. Thus the triad c-e-g is on one in the key of C, on four in the key of G, and on five in the key of F. Similarly a minor triad should be located on two, three and six of three keys, and the diminished triad on seven. The following table presents three triads in all the major keys in which they are found.



Maj.	Min.	Dim.
I in C	II in B♭	VII° in D♭
IV in G	III in A♭	
V in F	VI in E♭	

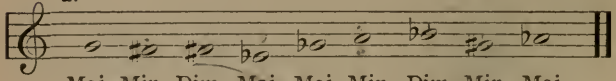
Tell what tones make the following chords and give all the major keys in which each is found.

1.



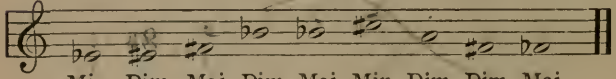
Maj. Min. Dim. Maj. Min. Dim. Maj. Min. Dim.

2.



Maj. Min. Dim. Maj. Maj. Min. Dim. Min. Maj.

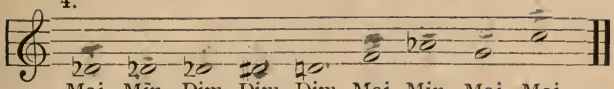
3.



Min. Dim. Maj. Dim. Maj. Min. Dim. Dim. Maj.

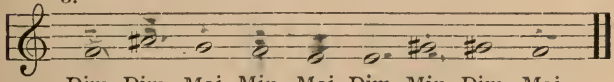
Bring preludes — Chopin

4.



Maj. Min. Dim. Dim. Dim. Maj. Min. Maj. Maj.

5.



Dim. Dim. Maj. Min. Maj. Dim. Min. Dim. Maj.

Lesson VIII.

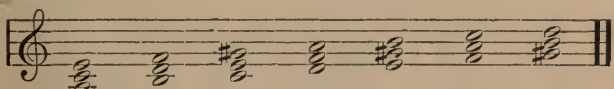
The Triads in the Minor Keys.

The triads in the minor keys are formed of the tones contained in the harmonic form of the scale. Those on five and six are major, on one and four, minor; on two and seven, diminished; and on three, *Augmented.*

An Augmented Triad has a major third and augmented fifth, and is indicated by an accent added to a large uumeral thus III′.

Written Work.

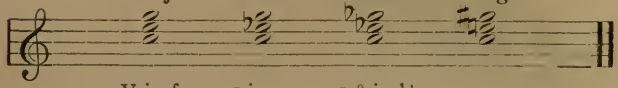
Write all the triads in all the minor keys to seven sharps and flats as in the following model:



a. I II° III′ IV V VI VII°

To Locate Chords in the Minor Keys.

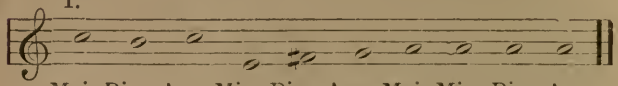
Locate a major triad on V and VI, a minor triad on I and IV, a diminished triad on II° and VII°, and an augmented triad on III′, of the harmonic minor scale. This is done with the four triads on C in the following table.



V in f. I in c. II⁰ in b♭
VI in e. IV in g. VII⁰ in d♭ III′ in a.

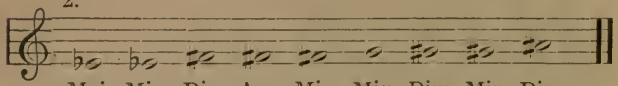
Tell what tones make the following chords and give all the minor keys in which each chord is found.

1.



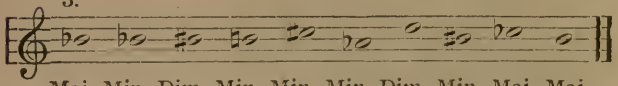
Maj. Dim. Aug. Min. Dim. Aug. Maj. Min. Dim. Aug.

2.



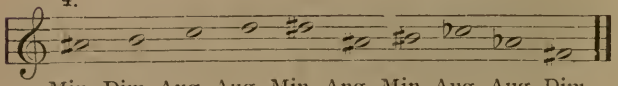
Maj. Min. Dim. Aug. Min. Min. Dim. Min. Dim.

3.



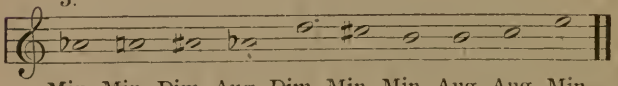
Maj. Min. Dim. Min. Min. Min. Dim. Min. Maj. Maj.

4.



Min. Dim. Aug. Aug. Min. Ang. Min. Aug. Aug. Dim.

5.

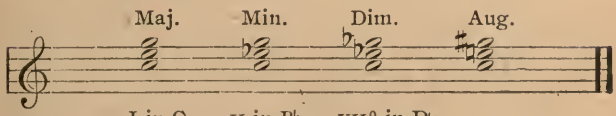


Min. Min. Dim. Aug. Dim. Min. Min. Aug. Aug. Min.

Lesson IX.

Triads in Both Major and Minor Keys.

By combining the tables in lessons VII and VIII the following is obtained:



I in C	II in B♭	VII° in D♭	
IV in G	III in A♭		
V in F	VI in E♭		
V in f	I in c	II° in b♭	III′ in a
VI in e	IV in g	VII° in d♭	

Be prepared to write such a table on the board using any letter (sharp, flat or natural) as the root of the four triads.

Recite the chords in the preceding lesson in both major and minor keys beginning as follows: a major triad on C is c-e-g. It is found on I in C, on IV in G and on V in F, and in the minor keys, on V in f and on VI in e.

Lesson X.

Connection of the Primary Triads with a Given Bass.

Each tone of a key has a special name as follows: I Tonic, II Supertonic, III Mediant, IV Subdominant, V Dominant, VI Submediant, VII Leading Tone; and the triads on these degrees are also indicated by the same names. Thus the chord on one is the Tonic, on V the Dominant, and on IV the Subdominant, i. e. the Underdominant, or five below the Tonic.

These three chords (the tonic with its two dominants) are the Primary Triads. They contain all the tones of the diatonic scale, and are best adapted to establish the tonality of the key. The connection of these primary triads in four part harmony is the next step.

Suggestions for Writing the Exercises.

The bass must be the root of each chord, and one of the upper voices will also contain the root. (The root is then said to be doubled).

The four parts are to be considered as the voices of a part-song for soprano, alto, tenor and bass, and treated as parts to be sung. The compass of the average voice will therefore seldom be exceeded, and long or difficult skips in any part would be in poor taste. Write the tenor on the bass staff. Turn the stems of notes upward on the right for tenor and soprano, and down on the left for alto and bass.

The upper three parts may be written as near together as the successive chord tones permit (Close Position) or they may be somewhat removed from each other covering more than an octave (Open Position), but the alto should seldom be more than an octave from soprano or tenor. The bass is often more than an octave from the tenor but should seldom be two octaves below it. The parts should not cross each other.

A figure 8, or no figure, over or under the first bass note means that the soprano should begin on the root, a figure 3 so placed requires the third of the chord as the first soprano note, and a figure 5, the fifth; but these figures do not apply beyond the first chord. After the first chord is written the others are arranged according to special rules as follows:

RULE I.

A tone common to two successive chords is generally kept in the same voice if possible, and the other voices progress to the nearest chord tones. (In this lesson it is always possible to keep the common tone. Do not give it up.)

RULE II.

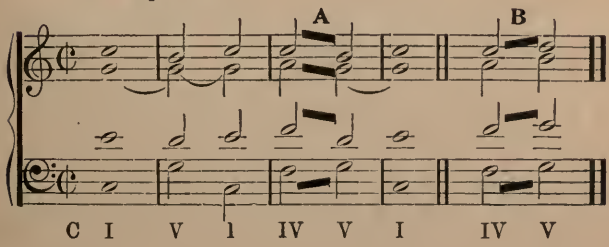
If there is no common tone the upper three voices progress in contrary motion to the bass to the nearest chord tones, to avoid consecutive fifths and octaves.

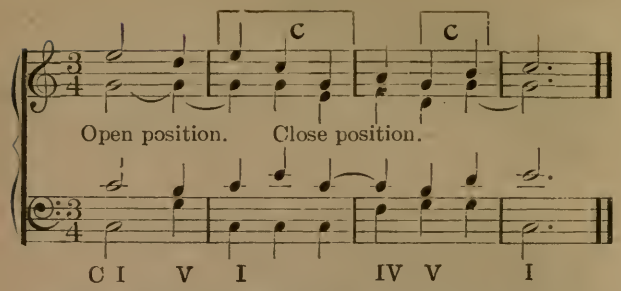
Consecutive Fifths and Octaves occur when two voices progress in the same direction a fifth or an octave apart. These progressions are avoided because consecutive fifths are usually unpleasant and consecutive octaves interfere with the independence of some voice. In the models at B consecutive fifths occur in the outer voices, and consecutive octaves between the bass and tenor. These are avoided at A by following Rule II.

If the bass note is repeated usually change the position of the chord, see the measure marked C. While a chord remains the same as in these cases, the upper three voices may move from one chord tone to another, even involving contrary motion among themselves. It is when the chord changes that Rules I and II must be considered.

Models.

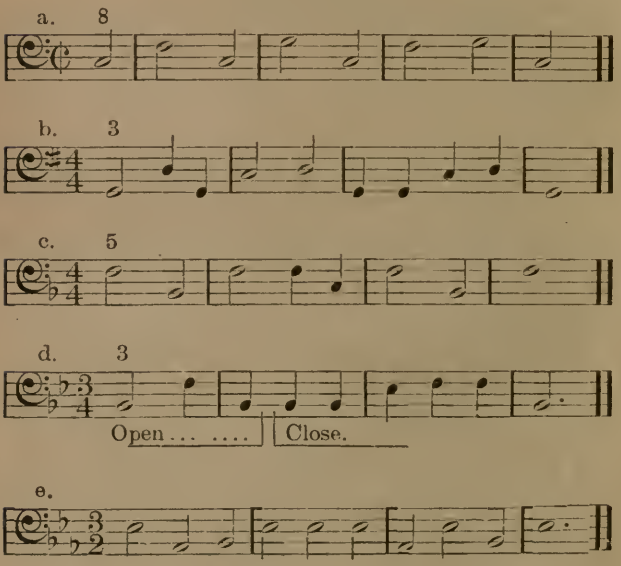
Close position.





Harmonize the following basses. Indicate the common tones with the tie and letter the chords as shown in the above models.

EXERCISES.



Lesson XI.

Connection of the Primary Triads with a Given Soprano.

The bass will be the root of I, IV or V, but the soprano may be the root, third or fifth of these chords.

Begin and end with the tonic chord.

Avoid the progression from V to IV if the third of V is in the soprano.

If the soprano repeats a note usually change the chord.

Generally change the chord when entering a new measure even if the soprano skips but when the melody begins on the last part of a measure the tonic harmony is usually repeated over the first bar. See model.

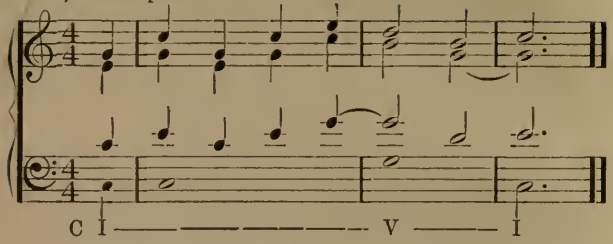
If the soprano, within the limits of the measure, skips from one tone to another of the same chord, keep the same bass and merely change the position of the alto, or tenor, or both, to suit the movement in the soprano. In following this rule the voices may be kept in close position throughout, the inner parts simply following the soprano and thus keeping on the nearest chord ones (Ex. A), or they may be more independent, leading to open position with the high notes in the soprano and again close position when the soprano lies lower (Ex. B).

Do not let the bass skip a seventh, nor two fifths in succession in the same direction.

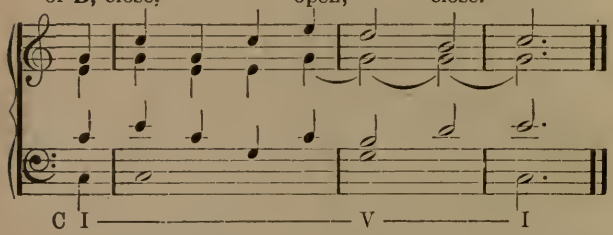
The special rules I and II in lesson X apply here, but with this important exception to Rule I: *With a given soprano if a common tone between two chords can not be kept, lead the upper three voices in contrary motion to the bass to the nearest chord tones as in Rule II.* (Even where the common tone can be kept it will be seen later that contrary motion is sometimes to be preferred.)

Models.

A, Close position.

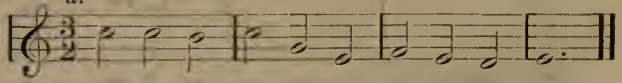


or B, close, open, close.

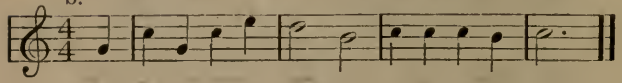


EXERCISES.

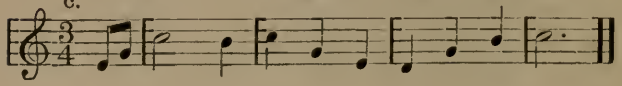
a.



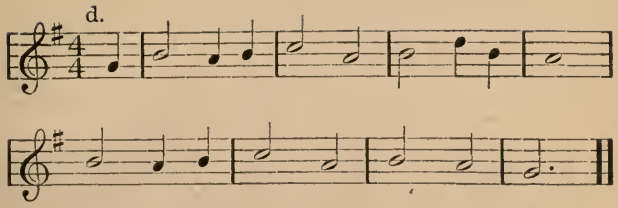
b.



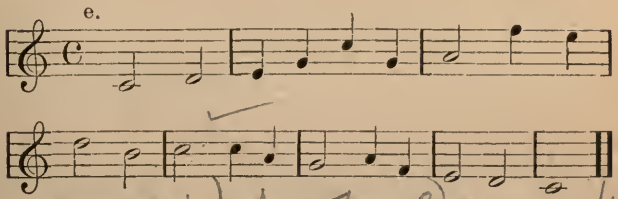
c.



d.



e.



Lesson XII.

Exercises with the Primary Triads Continued.

The Cadence.

A Cadence is the close of a musical phrase, and is formed by the last two (or more) chords. There are two general kinds of cadence, Authentic and Plagal.

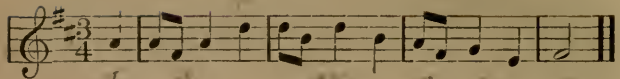
The Authentic Cadence is formed by the progression V–I, and the Plagal Cadence by IV–I, the Tonic always falling on the accent. These cadences are *perfect* when the soprano ends on the root of the tonic chord and *imperfect* when it does not.

In the exercises of this lesson write the name of each cadence, indicating whether it is Authentic or Plagal, and also whether perfect or imperfect.

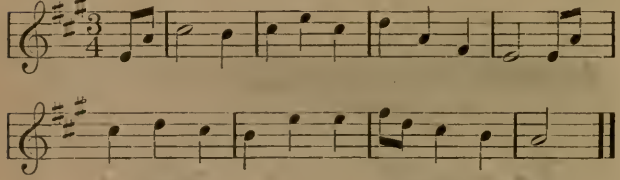
No chords except I, IV and V are to be used until regularly introduced in later lessons.

EXERCISES.

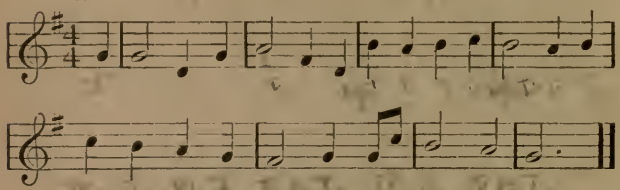
a.



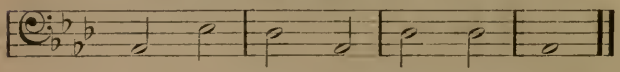
b.



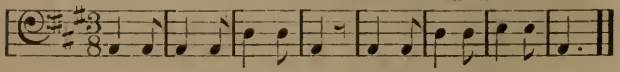
c.



d. 5 With a low soprano.



e. From a Hymn Tune. Write a good melody.



Lesson XIII.

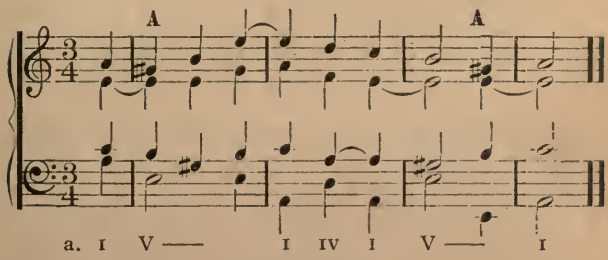
The Primary Triads in Exercises in the Minor Key.

In harmonizing a melody in the minor key, remember that the Leading Tone must always have a ♯ (or ♮) every

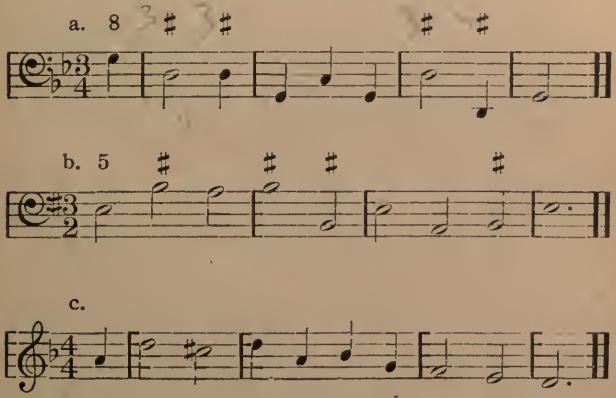
time it appears. With a figured bass this Leading Tone is indicated by ♯ (or ♮) over the dominant.

An accidental affects that degree only upon which it is placed. If for example, the soprano takes a g♯ and later in the same measure the tenor takes g♯ an octave lower, this degree must also have its own sharp. See A in the following model.

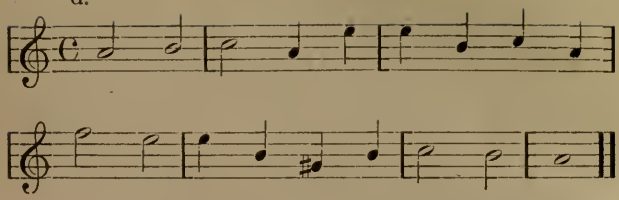
Model.



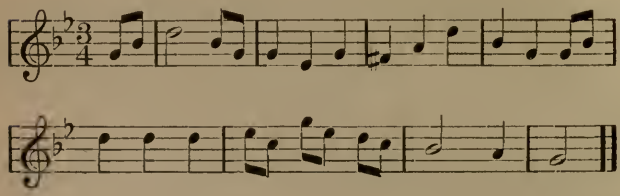
EXERCISES.



d.



e.



Lesson XIV.

The Chord of the Sixth.

A triad is said to be inverted when instead of the root, its third or fifth appears in the bass.

The Chord of the Sixth is a triad with its third in the bass. (The first inversion.) In a figured bass this is indicated by a figure 6 because the root is then a sixth above the bass note.

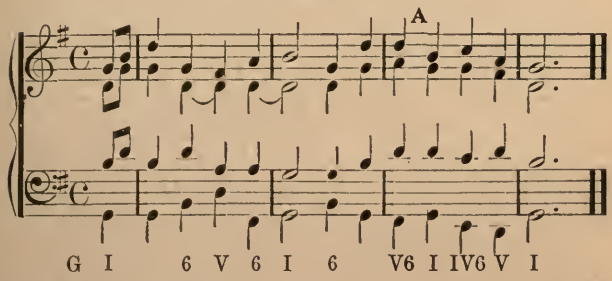
In harmonizing a soprano the chord of the sixth will often precede or follow the root position of the same chord. This is sometimes effective when the soprano repeats a note, e. g. the first measure of the third exercise to be worked.

In the chord of the sixth double either the root or the fifth. The third is doubled under certain circumstances but there is no occasion for this at present.

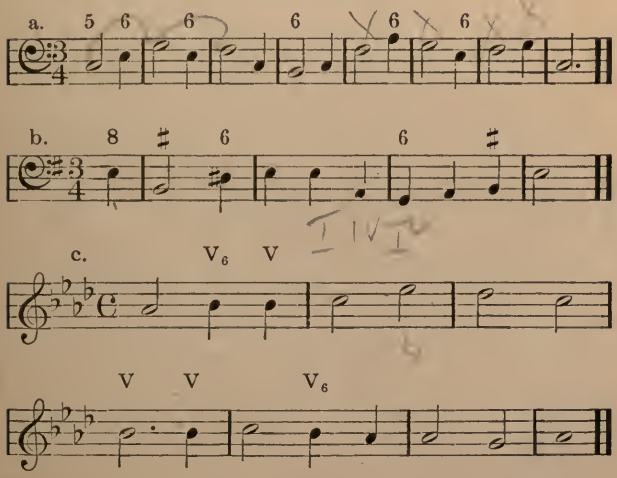
When there are two possible common tones generally keep the lower if the upper one is the soprano. See A.

In addition to I, IV and V we now have I^6, IV^6 and V^6, affording the bass three new tones. The Roman numerals always indicate the root of a chord.

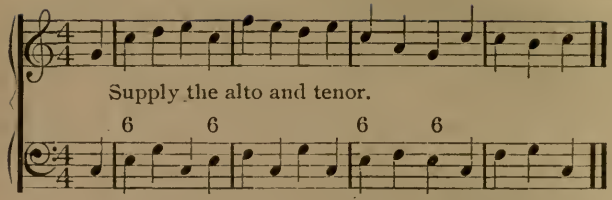
Model.



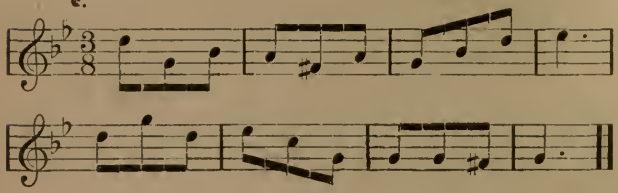
EXERCISES.



d.



e.



Lesson XV.

The Six-Four Chord.

The Six-Four Chord is a triad with its fifth in the bass. (The second inversion.) In a figured bass this is indicated by $\frac{6}{4}$ because the third and root are respectively a sixth and a fourth above the bass.

The six-four chord is employed principally to strengthen the authentic cadence in the closing formula, I^{6}_{4}, V, I; see in the models C^1. It also precedes the dominant where a partial close is desired, C^2. In these cases the six-four chord must appear on a relatively strong beat in the measure as compared with the dominant which follows it, i. e. on the first beat in double time, the first or second beat in triple time and the first or third beat in quadruple time. This use of the chord is very characteristic and must be reserved for cadences only. There are three other uses of the six-four chord, all of which are of secondary importance, as follows:

The six-four chord may appear,—

First, when its bass note is the second of three repeated notes as at A. (Not a strong progression.)

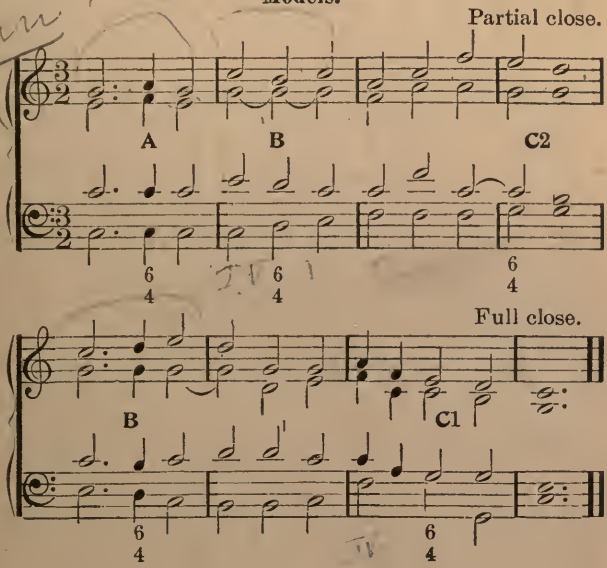
Second, when its bass note is the second of three notes progressing degreewise as at B.

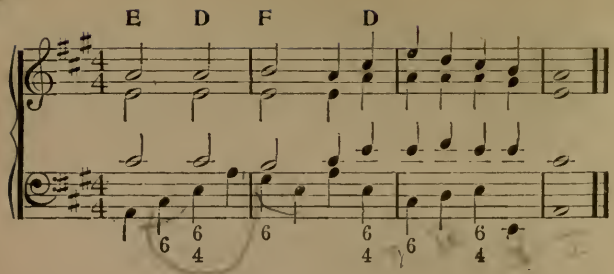
Third, when its bass note is taken and left by a skip and is the second of three notes belonging to the same chord as at D.

At E notice a third doubled and at F the third omitted, both of which progressions are good. Good at E because the third on the weak beat is not unpleasantly prominent, and at F because the presence of the third on the accent is sufficient.

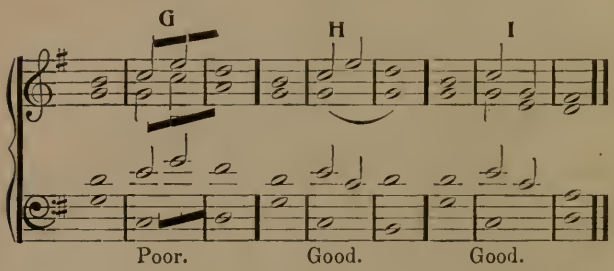
In the six-four chord always double the fifth, the bass note.

Models.





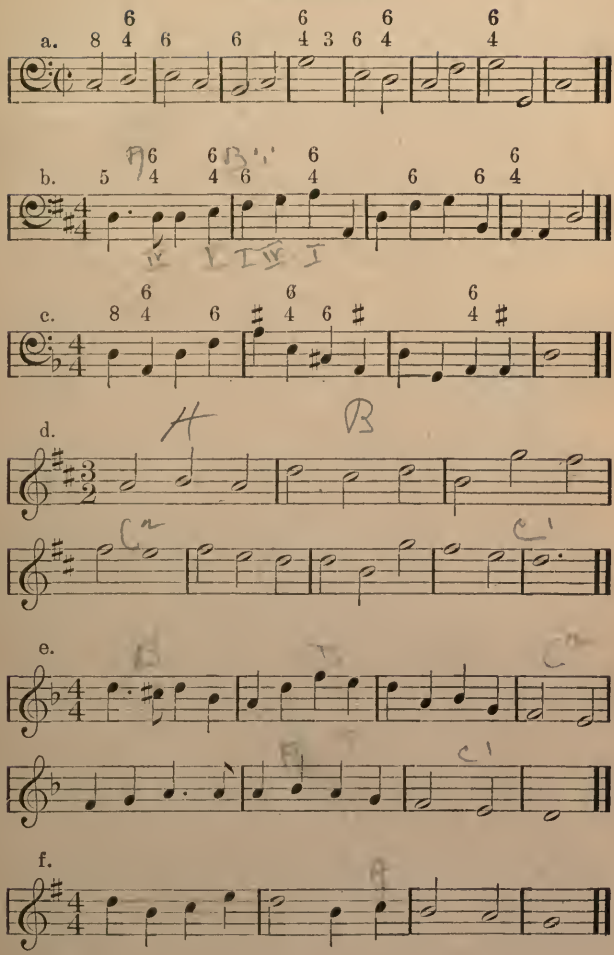
Consecutive octaves and fifths as at G from one strong beat to another should be avoided even if another position of the chord seems to have hidden them. These are avoided at H by changing the succeeding chord, or if the bass be given, by writing the soprano differently as at I.



The figure 3 over any bass note except the first indicates a triad in the root position, hence $\frac{6}{4}$ 3 over the same note calls first for a $\frac{6}{4}$ chord and then for a triad whose root is the bass note.

A stroke through a figure does not alter its meaning as a sign of inversion, but indicates that that interval above the bass is to be chromatically raised, e. g. $\not{6}$ means a chord of the sixth with six above the bass raised chromatically.

EXERCISES.

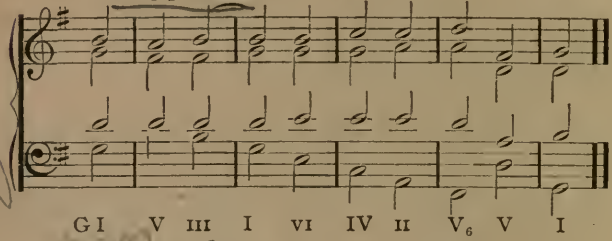


Lesson XVI.

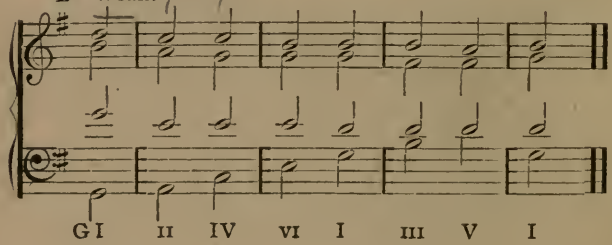
The Secondary Triads in Major in the Fundamental Position.

The Secondary Triads are those formed on the second, third, sixth and seventh degrees of the scale In modern harmony they are used mostly as connecting chords. Unlike the primary triads, these have not the power to establish tonality of key and if so much used as to largely exclude the primary triads, the result is likely to be unsatisfactory unless it is desired to imitate the ancient church style. The progressions are strong when the bass descends by skips of a third to successive roots (Ex. A), while the reverse progression of the bass gives a weak result (Ex. B).

A Strong progressions.



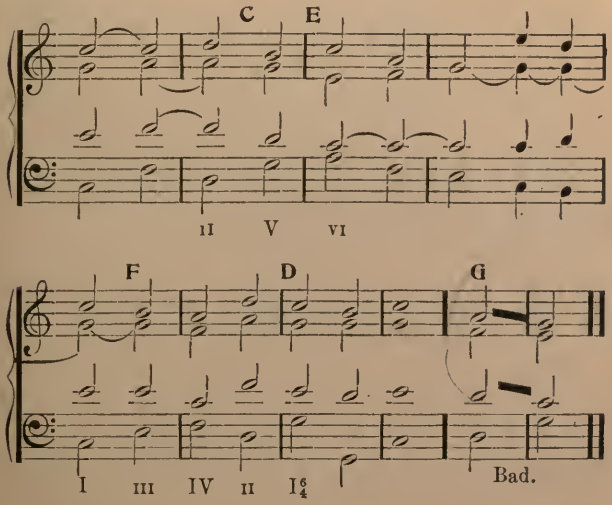
B Weak.



The most important of the secondary triads is that on the second degree, the Supertonic. It is best used to precede the dominant, or the tonic six-four chord in the cadence as follows:

In the progression II–V give up the binding tone and lead the upper three voices in contrary motion to the bass to the nearest chord tones. (C in the following model.) In this progression the bass should ascend.

In the progression II–I^6_4 the bass ascends and the upper three voices progress in contrary motion to the nearest chord tones (D). Here the fifths of the chords must not be above the roots on account of the resulting consecutive fifths as at G. Note especially how, in order to avoid these consecutives, the binding tone is given up in approaching the supertonic chord at D. This is not simply good because necessary, but at the same time a better melody is obtained.



Next in importance is the triad on the sixth degree, the Submediant. It often follows the dominant with the following special treatment:

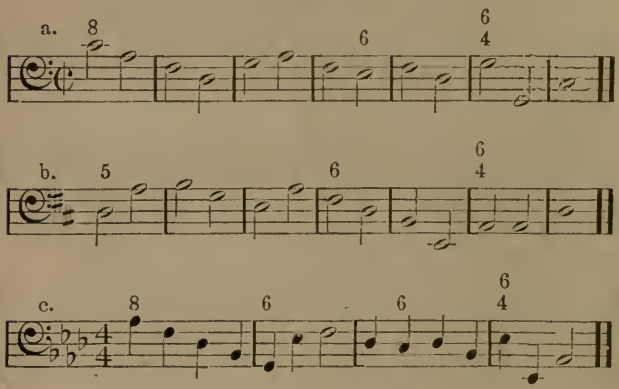
In the progression V–VI the leading tone frequently ascends to the tonic, especially if in the soprano, thus doubling the third in VI (E). Elsewhere the use of this chord involves no special rules.

The triad on the third degree, the Mediant, is of comparatively little importance and requires no special rules. Its best uses are in the progression V–III–I as in Ex. A, and in I–III–IV with the descending scale, and the leading tone in the soprano, as at F.

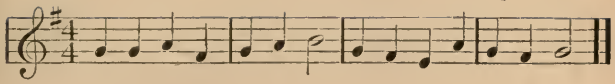
The triad on the seventh degree (diminished) is seldom used in its root position, except in sequence, and will be treated later.

When the soprano is given use the primary triads as heretofore, except where otherwise indicated. Any exercise marked "Unfigured" leaves the choice of all material to the pupil.

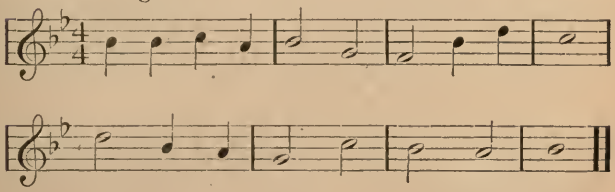
EXERCISES.



d. VI II III II I^6_4



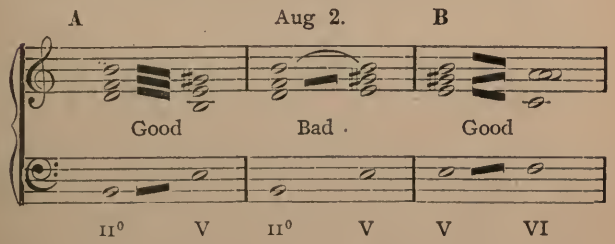
e. Unfigured.

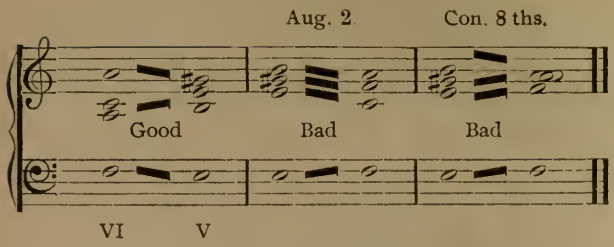


Lesson XVII.

The Secondary Triads in Minor in the Fundamental Position.

In the minor the supertonic triad is diminished. While not frequently used in fundamental position it may so appear and in the progressions II^0–V and II^0–I^6_4, it is bound by the same rules as in major, i. e. contrary motion to an ascending bass. The violation of this rule in minor in II^0–V gives rise to the forbidden progression of an *augmented second*, see A. In pure part writing the progression of an augmented interval in any voice is prohibited.





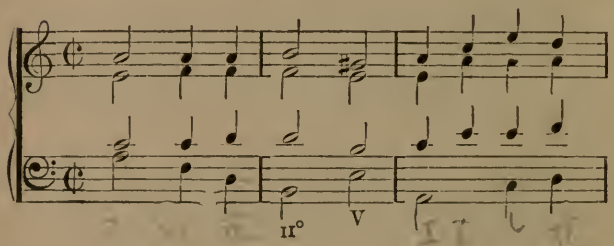
The triad on the sixth degree in minor when preceded or followed by the dominant, requires the following rule:

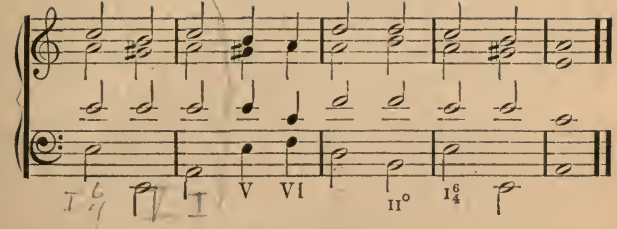
In the progression V–VI, or VI–V, always double the third in VI, and do not omit the fifth. In this progression the leading tone is never taken or left by a skip. See B.

The triad on the third degree, being augmented, is too harsh to be of any practical value in the present studies and is not used here.

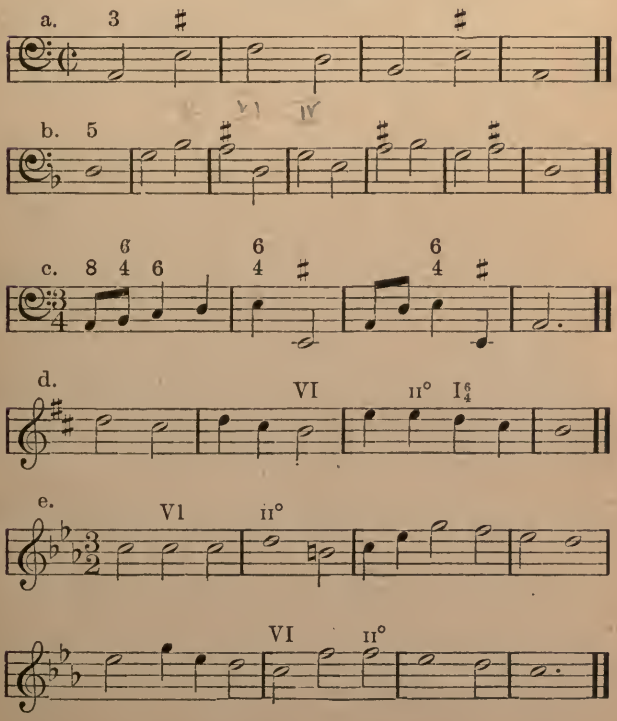
The triad on the seventh degree (diminished) is seldom used in root position and is treated as in major (to be introduced later).

Model.





EXERCISES.



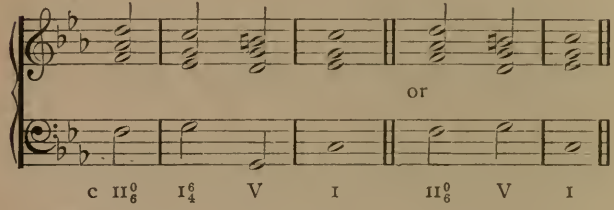
Lesson XVIII.

Inversions of the Secondary Triads.

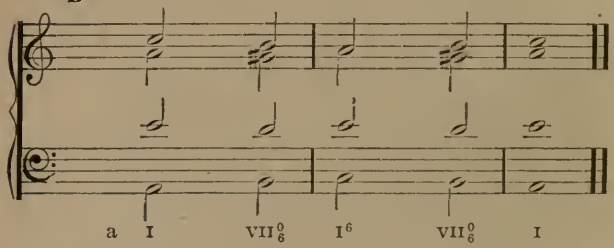
The supertonic triad in its first inversion is of special importance in both major and minor. As a rule its third, the bass note, should be doubled, and in this form it is generally much better than the fundamental position before V or I $\frac{6}{4}$ in the cadence, especially in minor. See A.

The triad on the leading tone in its first inversion is highly useful. For the present double its third, less often its fifth and never its root, and lead all the voices without skip to the tonic chord which should follow it. See B. This important chord is taken up in detail in Part II.

A



B



No special rules are required for the use of the remaining secondary triads in their first inversion. They appear with doubled root, third or fifth according to the necessities of the voice leading in general.

The second inversion of the secondary triads is not available in the present lessons. As passing chords they are weak and on an accent they sound like tonic chords, thus suggesting a modulation.

From this point onward, practice and observation best serve the pupil in numberless cases, but the following general principles are of value:

The Leading Tone is almost never doubled.

Primary triads oftenest double the root or fifth.

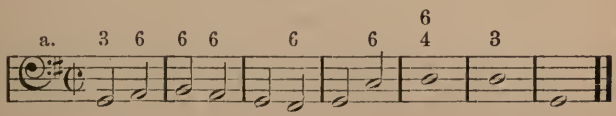
Secondary triads in first inversion frequently double the third.

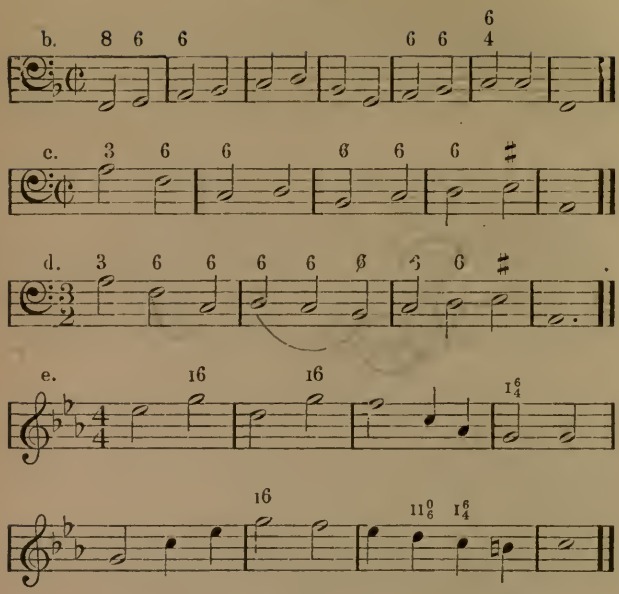
In two successive chords of the sixth in close position generally double the root or fifth in one and the third in the other, but this doubled third must not be the leading tone.

In three successive chords of the sixth with the bass ascending degreewise, double the fifth in the first chord, the third in the next and the root in the last; and with a descending bass, double in turn the root, third and fifth. This requires close position. See application of this principle in examples *c* and *d* to be worked out.

At the end of exercise *d*, however, it is finer to double the third in the $11\frac{0}{6}$, which shows that the third may sometimes be doubled in successive chords of the sixth when the upper three voices can all be led correctly in contrary motion to the bass. But this applies in example *d* to the last measure only and is not a necessity there.

EXERCISES.





Lesson XIX.

A Few Special Progressions.

In ordinary chord progression similar motion of all the voices at once is generally bad. But in major the progression from I or I^6 with doubled root, to II^6 with doubled third permits similar motion of all parts if the root of II^6 is above the fifth. See A. In minor, equally good downward, but less so with upward progression.

In the progression from II to V, in either major or minor, the downward progression of all the voices as at B cannot be condemned.

A Good. Poor.

or

B

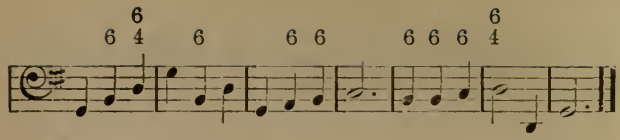
or

EXERCISES.

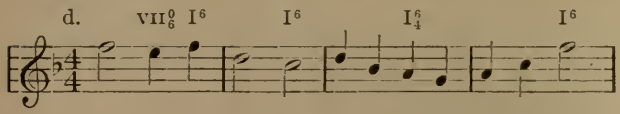
a. 3 6 6 6 6 4 3 6 6 6 4 3

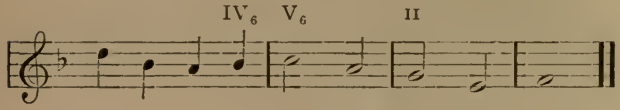
b. 6 6 6 6 6 4

c. 5 6 6 6 4 6



d.





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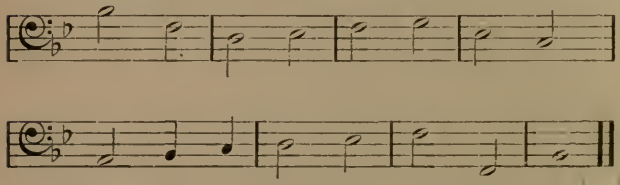


Lesson XX.

The Sequence.

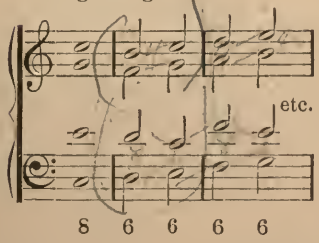
A Sequence is a succession of similar harmonies resulting from a symmetrical progression in the bass. In the present studies the sequence must fill at least three measures.

Harmonize the first measure of a sequence according to the principles already laid down, and consider this the sequence unit. Note what voices double root, third, etc., and then arrange each measure of the sequence to correspond exactly with this unit or pattern. In attaining this

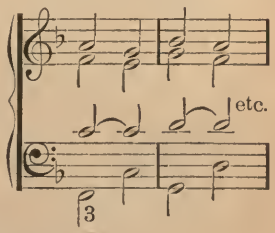
symmetry it is permitted to double the Leading Tone. Similar motion of all the parts at once if not in consecutive octaves or fifths, is also allowed.

Begin the first exercise as shown below, doubling third and root in succession. In groups of three successive chords of the sixth the pupil is reminded of the principle advanced in Lesson XVIII.

Beginning of *a*.

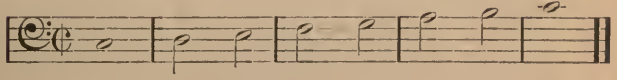


Beginning of *g*.

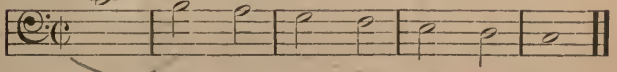


EXERCISES.

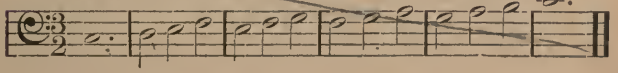
a. 8 6 6 6 6 6 6



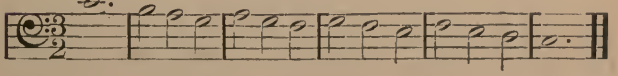
b. 3 6 6 6 6 6 6



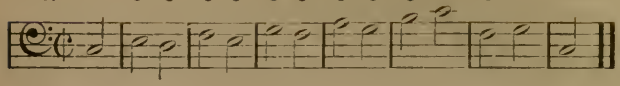
c. 8 6 6 6 6 6 6 6 6 6 6 6 6



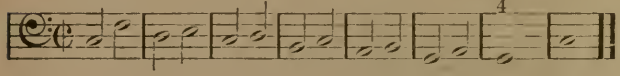
d. 3 6 6 6 6 6 6 6 6 6 6 6 6



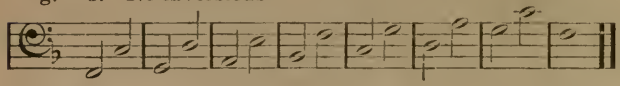
e. 6 6 6 6 6 6 6 6 6 6



f. 5 6 6 6 6 6 6 6 6 6 6 6 6 3
4

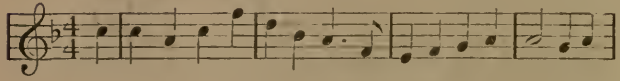


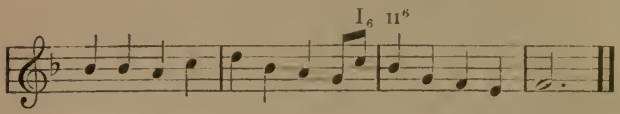
g. 3. No inversions



REVIEW EXERCISES.

1.





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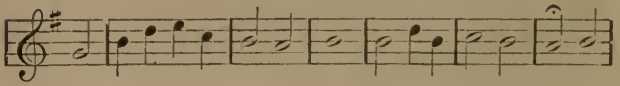

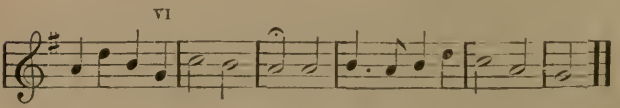

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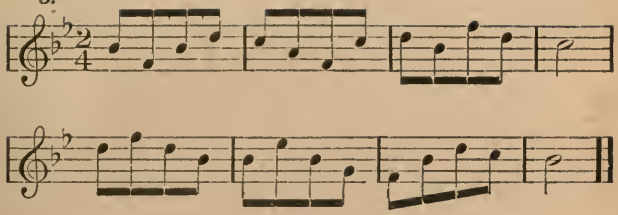
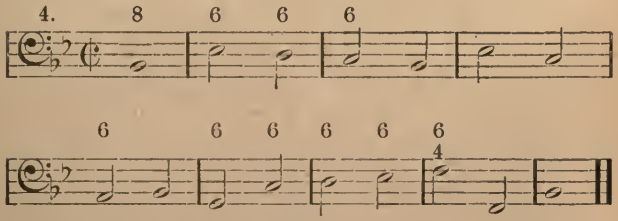
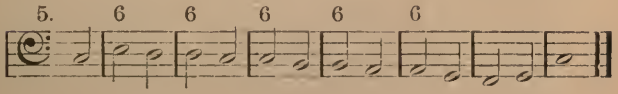


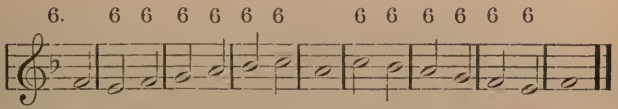
4.



5.

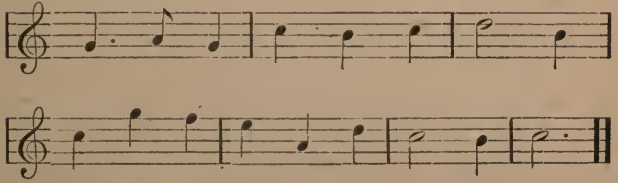


6.

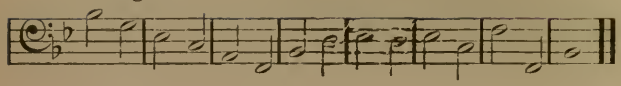


These 6's mean chord of the sixth with root in soprano.

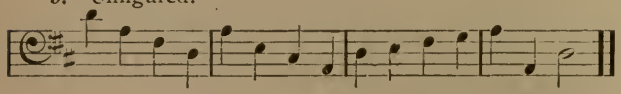
7. Unfigured.



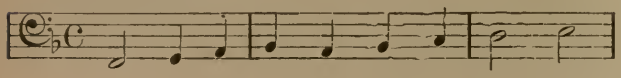
8. Unfigured.

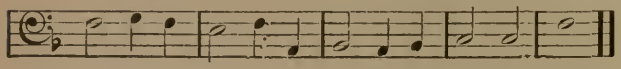


9. Unfigured.



10. Unfigured.





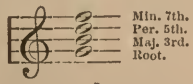
Lessons in Harmony.

Part II.

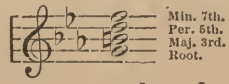
Lesson I.

THE CHORD OF THE DOMINANT SEVENTH.

By adding a seventh to the triad on the fifth degree of the scale a chord is formed called the Dominant Seventh.

1. 

C V $^{7}_{5}{}_{3}$ or $^{7}_{3}$ or 7

2. 

c V $^{7}_{5}{}_{3\flat}$ or $^{7}_{\sharp}$

This chord is the same in both the major and the minor keys. It has a major third, perfect fifth, and minor seventh.

Write and play this chord in every major and minor key.

All chords which contain one or more dissonances are called dissonant or tendency chords, because the ear is not satisfied to accept such a chord as a point of repose, but demands that it progress or resolve to a consonance.

The Dominant Seventh chord is the most important of all the dissonant chords. It contains two dissonances, viz., the seventh, from the root to the seventh, and the diminished fifth, from the third to the seventh. The seventh being dissonant to both the root and the third of the chord, has a strong tendency to progress downward one degree to the third of the tonic triad. The third being the leading tone, follows its tendency to progress upward to the tonic. For the purpose of leading these tendency-tones in their natural manner, the following rules are usually given for the

Regular Resolution of the Dominant Seventh Chord.

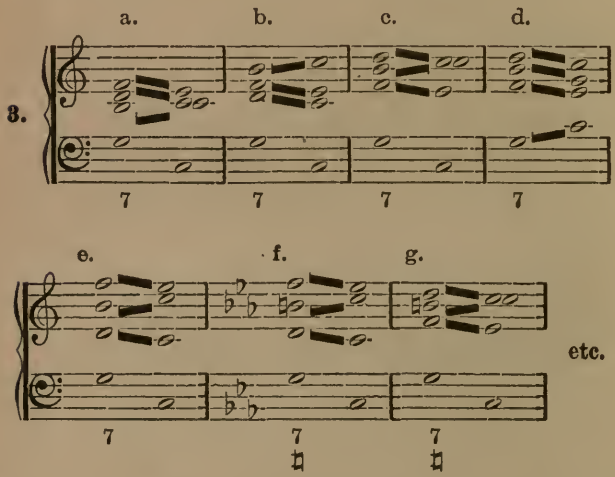
1. The seventh descends one degree to the third of the tonic triad.

2. The fifth usually descends one degree to the root of the tonic triad, but it sometimes ascends one degree if a smoother voice-leading is gained thereby.

3. The third being the leading tone may always ascend one degree, or if in a middle voice, it may descend two degrees provided the bass moves upward.

4. When the root is in the bass, it skips upward a fourth or downward a fifth to the root of the tonic triad; if in any other voice, it remains stationary as a binding tone.

The application of the rules is the same in either major or minor keys.



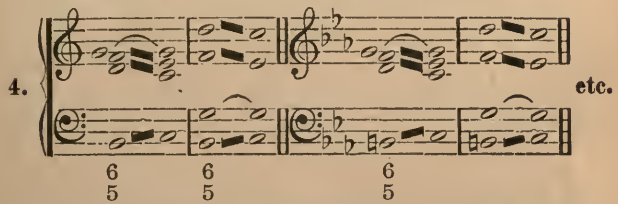
The Dominant Seventh chord with its resolution should be written and played in every major and minor key, and in both close and open position.

Lesson II.

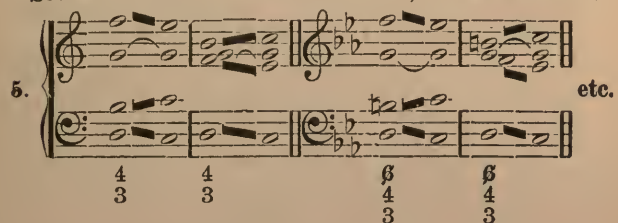
Inversions of the Dominant Seventh.

The Dominant Seventh has three inversions. In resolving these inversions the root of the chord should be kept as a binding tone, while the remaining tones are treated the same as in the fundamental position, with this exception, that in V^2 the fifth of the chord, when in the soprano, frequently skips upward a fourth. See No. 6, *b*.

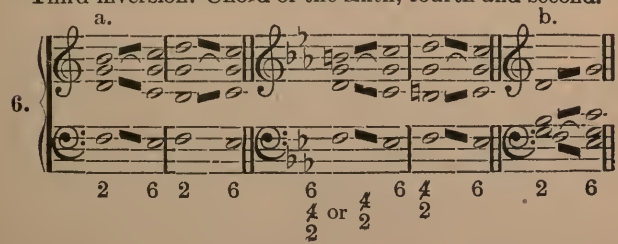
First inversion; Chord of the sixth and fifth.



Second inversion: Chord of the sixth, fourth and third.



Third inversion: Chord of the sixth, fourth and second.

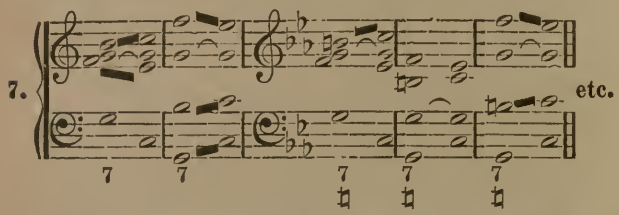


Write and play each of these inversions with its resolution in every major and minor key, in various positions and in both close and open harmony.

The Dominant Seventh Chord with its Fifth Omitted.

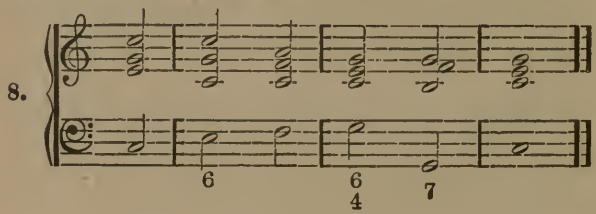
By omitting the fifth and doubling the root of the dominant seventh (in fundamental position) it resolves to a complete tonic triad. In this form it is very useful and often more desirable than when its fifth is present. Notice that the root only, may be doubled, since to double the seventh or the third would produce consecutive octaves in the regular resolution.

The dominant seventh with fifth omitted resolving to the complete tonic triad.



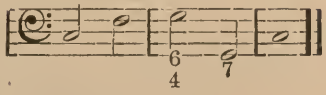
These resolutions should be prepared in the same manner as those in examples, 4, 5 and 6. In the recitation at the piano the pupil should play without notes.

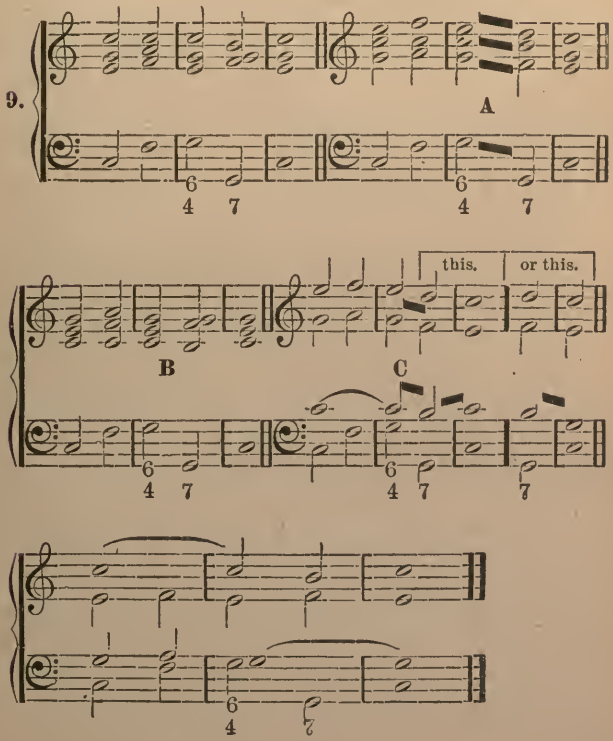
The following cadence is to be committed to memory and played in every major key.

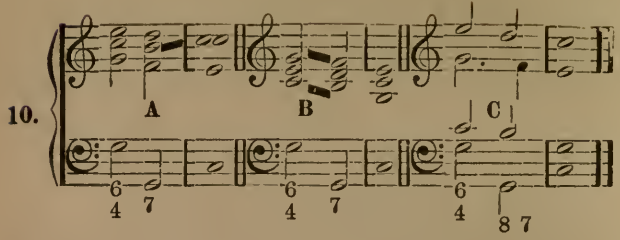


Lesson III.

Fundamental Position of the Dominant Seventh in Exercises.

This exercise  is correctly treated in the following ways: (No. 9.)





At No. 9, A, all the tones of the dominant seventh chord are taken in similar motion. This is entirely satisfactory here since the skip of the octave is essentially a binding tone and the upper three voices all move degreewise, i. e. diatonically. The leading tone might have progressed upward to the tonic as at No. 10, A, but this leaves the tonic triad without its fifth. While this is quite correct, it is generally desirable to use the complete chord where possible.

At No. 9, B, however, if all the voices moved downward there would appear a somewhat unsatisfactory progression, i. e. the consecutive fifths between the soprano and tenor. (See 10, B.)

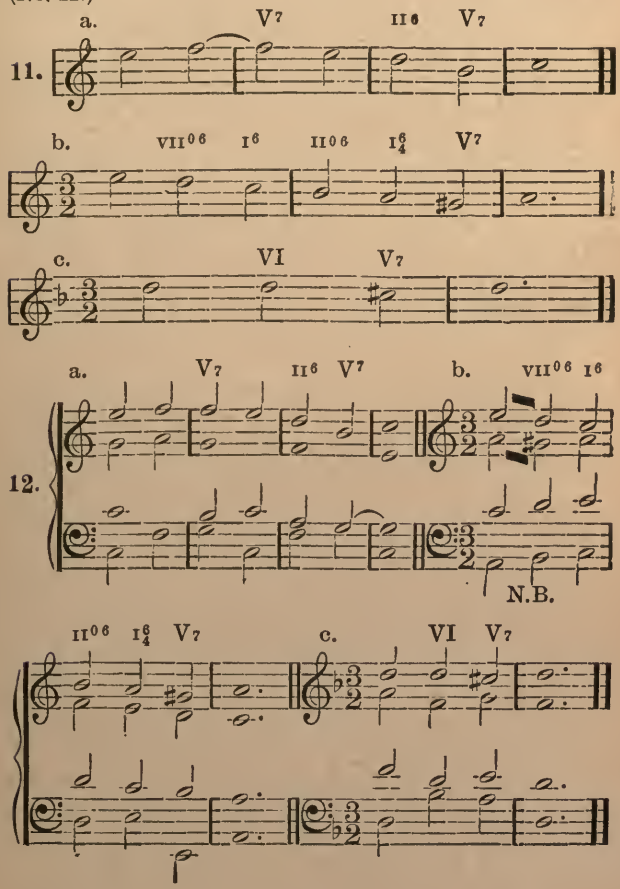
Now while these are not actually forbidden consecutives, the second fifth being diminished, yet the solution at No. 9, B, is preferred by some good authorities.

At No. 9, C, the same fifths here spoken of appear, but with no unpleasant,effect, the arrangement of the voices being especially favorable. This progression is very often used as at No. 10, C, the seventh being delayed until after the dominant triad has appeared. Such a progression is indicated by the figures 8 7 over or under the same note. In this case the passing seventh may be given to any voice which gives a good arrangement of the following chord.

The figuring will generally suffice to make clear the necessary solution, but the student must aim to become familiar with the most usual and satisfactory progressions

so that he may early learn to write without any figuring, or even to invent short exercises himself.

Here are three short melodies correctly harmonized. (No. 12.)



In 12, *a*, notice the open position. When the soprano is high this is nearly always the better arrangement of the voices.

In *b*, the open position changes to close quite naturally through the progression of the outer voices. At N. B. the consecutives between alto and soprano are permitted, the second fifth being diminished.

In *c*, note that the third must be doubled in the chord on the sixth degree in order to approach the dominant seventh chord without fault.

Suggestions for the Exercises from this point on.

1. Write often in open position.

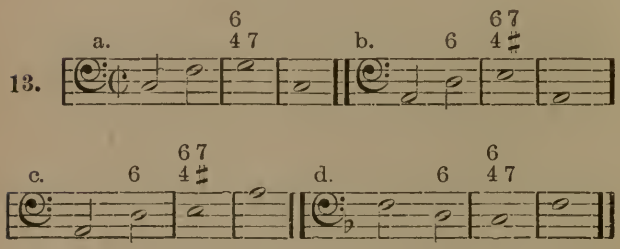
2. Write the tenor on the bass staff whether in open or close position.

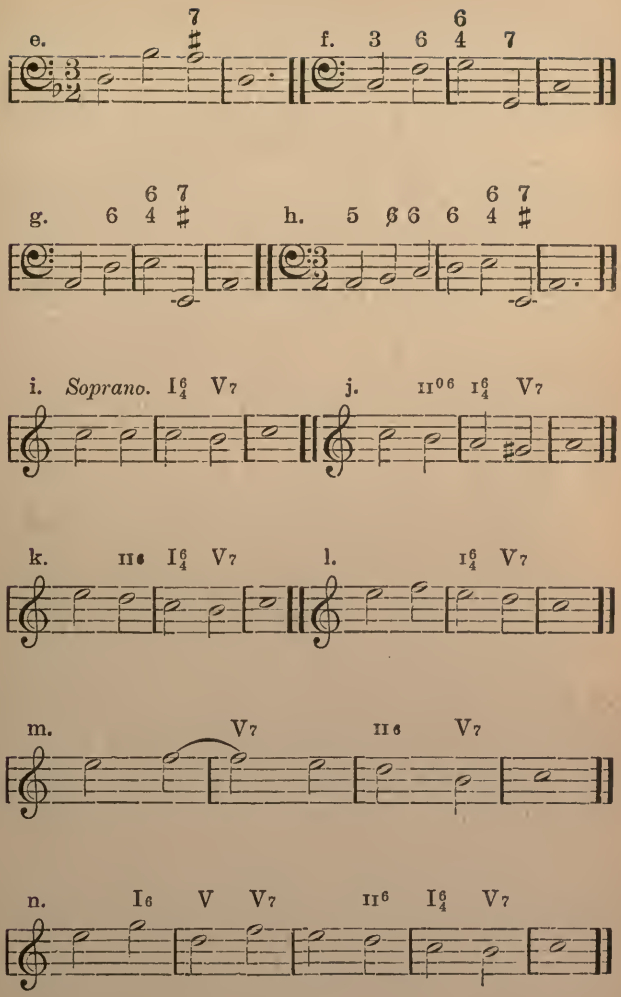
3. Write separate stems for each part, and turn the stems up for soprano and tenor, and down for alto and bass.

4. The alto must not be more than an octave from the tenor or soprano. The tenor and bass may be farther apart than this, but should rarely be more than two octaves from each other.

In the following exercises, when no figure appears over the first bass note, write two solutions beginning in different positions. In one solution use the fifth in the dominant seventh chord, in the other, omit it.

EXERCISES.



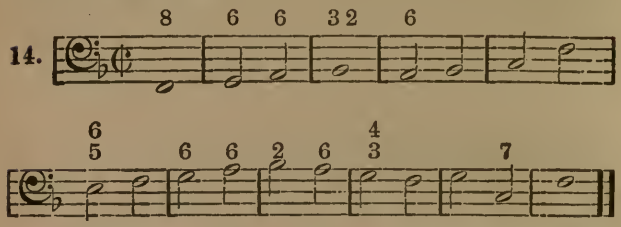

e.
f. 3 6 6 4 7
g. 6 6 4 7
h. 5 6 6 6 4 7
i. Soprano. I 6 4 V7
j. II06 I 6 4 V7
k. II6 I 6 4 V7
l. I 6 4 V7
m. V7 II6 V7
n. I6 V V7 II6 I 6 4 V7

Lesson IV.

Inversions of the Dominant Seventh in Exercises.

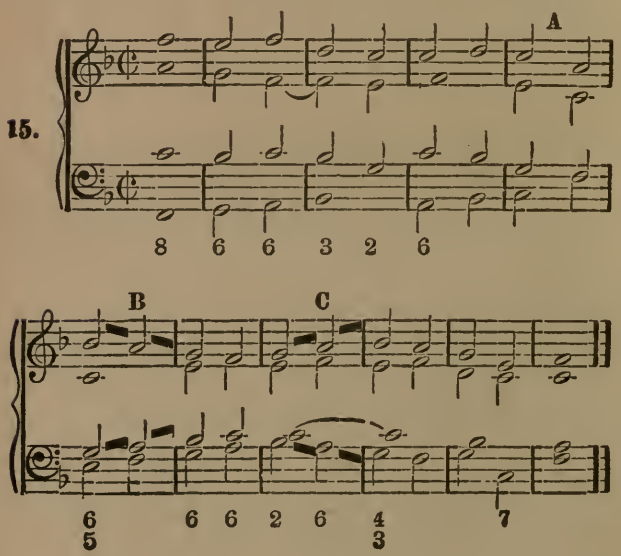
The following bass

14.



is here harmonized for the guidance of the pupil. It should be carefully analyzed before the lesson is written.

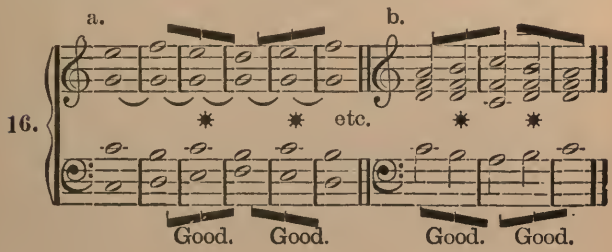
15.



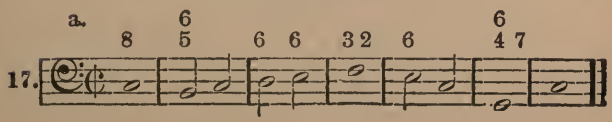
Before beginning to harmonize an exercise, the student should study its characteristics and try to plan the leading of the voices to the best advantage. It was seen that the bass given above (14) begins rather low and makes a gradual ascent through more than an octave. This suggested a rather high soprano, and this in turn almost required the open position, since it would be in poor taste to make the tenor begin on so high a tone as one lined A. When the bass reaches the upper part of the staff through an interesting upward progression, the soprano has come gradually downward until the parts are in close position.

At A, the binding tone is given up. This was not necessary, but was permitted as an exception to the rule, making the soprano more melodious.

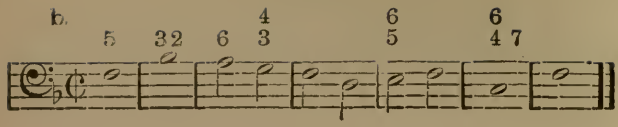
At B, the third of the tonic chord is doubled in the soprano and tenor; and at C, in the soprano and bass. It should be observed that if the voices which double the third progress degreewise through it in contrary motion, the effect is beyond criticism, No. 16, *a*. In this manner even the Leading Tone may be correctly doubled, No. 16, *b*.



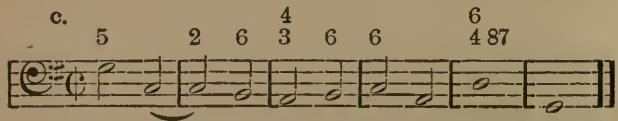
EXERCISES.



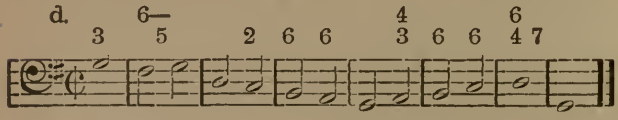
b.


5 32 6 4 3 6 5 6 4 7

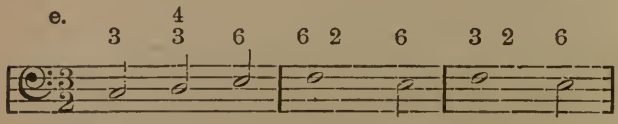
c.

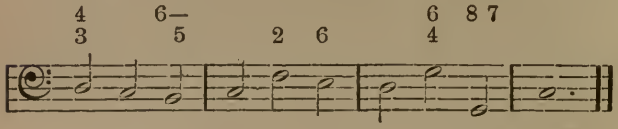

5 2 6 4 3 6 6 6 4 87

d.

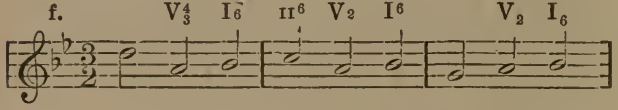

3 6— 5 2 6 6 4 3 6 6 6 4 7

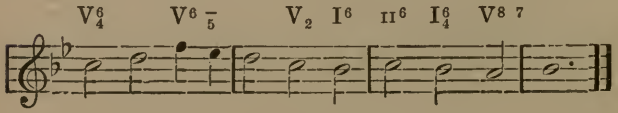
e.


3 4 3 6 6 2 6 3 2 6


4 3 6— 5 2 6 6 4 8 7

f.


V 4/3 I 6 II 6 V 2 I 6 V 2 I 6

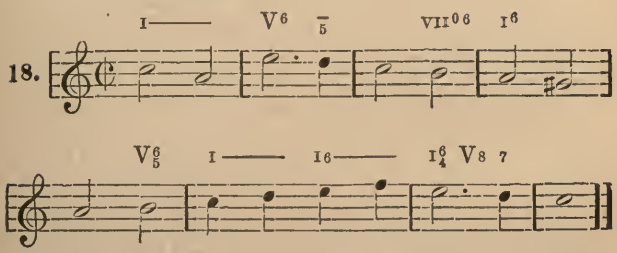

V 6/4 V 6 5 V 2 I 6 II 6 I 6/4 V 8 7

Lesson V.

Inversions of the Dominant Seventh in Exercises in Minor.

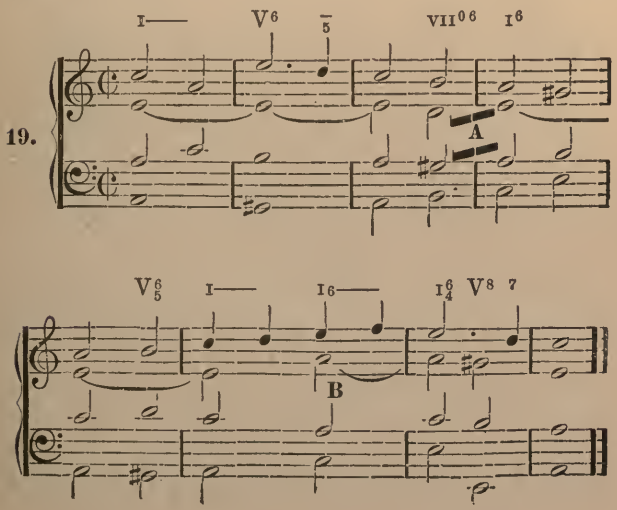
The following soprano

18.



is harmonized here to illustrate the application of the figuring.

19.

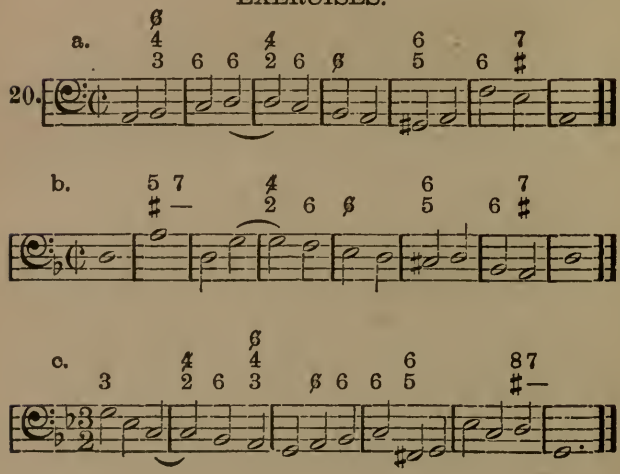


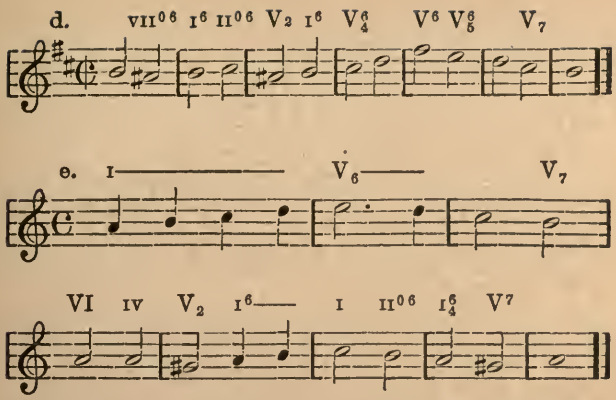
A dash after a numeral indicates that the root of the chord does not change, although the melody may move to another tone. For example, in the first measure, the second note is a part of the chord, in the second measure the quarter note adds the seventh to the dominant triad, and in the sixth measure the second and fourth quarter notes are passing notes not affecting the harmony, but giving the melody a more flowing character.

Consecutive fifths in the order, diminished to perfect, as at A, are used by the best writers. The student should observe that the chords are in their first inversion. These fifths may not appear between the bass and any upper voice.

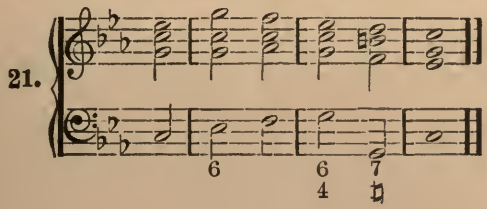
At B, the harmony is the same throughout the measure. All the voices may move freely to new positions in one and the same chord, there being no real necessity for a binding tone except when one chord progresses to another.

EXERCISES.





Commit No. 21 to memory and play in every minor key.

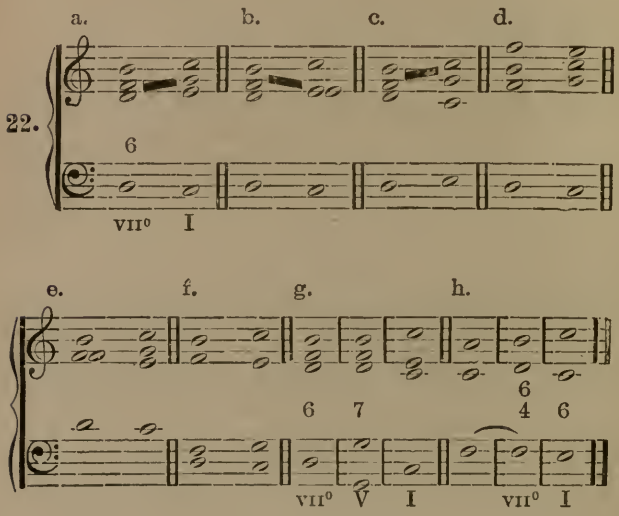


Lesson VI.

The Triad on the Leading Tone.

The triad on the leading tone is a dissonant or tendency chord, and like all such chords it requires resolution. The dissonant tones are the fifth and the root, and neither of these tones can progress by a skip, but must resolve degree-wise. The chord generally appears in its first inversion and resolves to the tonic triad. The root (Leading Tone)

is almost never doubled, and ascends one degree. The fifth resolves one degree either upward or downward, depending largely upon the position of the other parts. For the sake of making the following triad complete, the fifth often ascends, (see *a* and *c*) but at the same time the progression at *b* is quite correct. When the fifth is doubled, one of these fifths ascends and the other descends, (*d, e, f.*). The third being dissonant to neither of the other tones is free to progress degreewise in either direction or even to move by a skip if the succession of chords demands it, as at *g*. When the diminished triad is in its second inversion, it has all the characteristics of the dominant seventh chord in its V^2 position and the bass (fifth of the triad) must resolve downward as at *h*.



Covered Fifths.

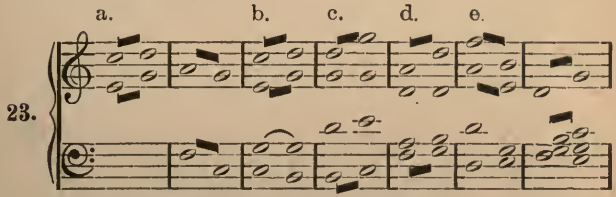
Covered Fifths occur when two voices, which are either more or less than a fifth apart, progress *in the same direction* to a fifth. 23 A. No brief rule can be given for the treatment of covered fifths, but the following principles may be set forth: the terms *lower voice* and *upper voice* referring to the voices which make the covered fifth.

1. Covered Fifths are permitted when the *upper voice* progresses a major or minor second, B.

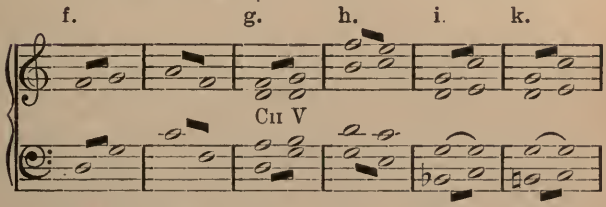
2. Good, when the *lower voice* progresses upward a minor second, C.

3. Poor, when the lower voice progresses a major second, D.

4. When both voices progress by a leap, usually poor, but sometimes good, E.



Covered fifths. Good. Good. Poor. Bad. Good.



Covered octaves. Bad. Bad. Bad. Good.

Covered Octaves.

Covered Octaves occur when two voices which are either more or less than an octave apart progress in the same direction to an octave. 23 F. See rules, P. 18.

1. In general, Covered Octaves are permitted when the upper voice progresses a degree and the lower voice a fourth, or more, except in the progression to V, as at G. Avoided by the rule of contrary motion Part I, p. 31.

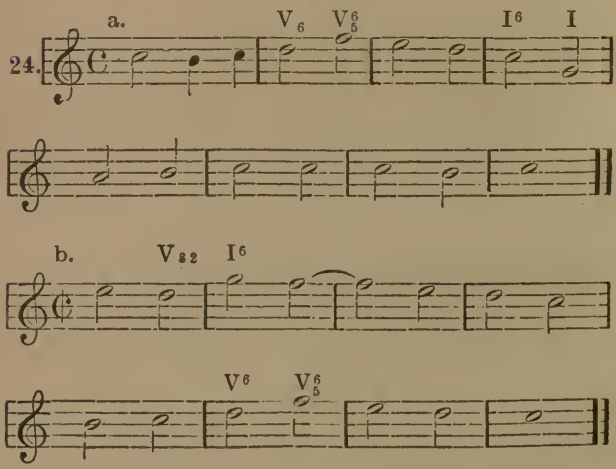
2. With upper voice progressing one degree and the lower progressing a third, always bad. Avoided by the rules for resolving the Dominant Seventh Chord, Part II, p. 2.

3. With upper voice progressing upward a fourth and the lower voice a minor second to a root, good. K. But in this progression if the lower voice progresses a major second, instead of a minor, the result is bad. I. Compare especially I and K.

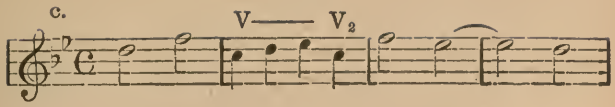
4. Both voices progressing by leap, bad.

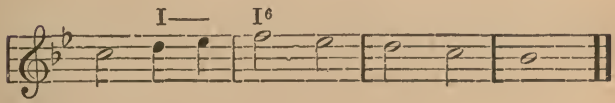
The above is presented here more for matter of reference than of immediate need. All of Part I is supposed to be done with no reference to covered octaves or fifths. And even from now onward the observance of the general principles as laid down will be the best guide to good writing.

EXERCISES.

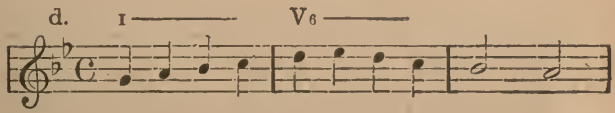


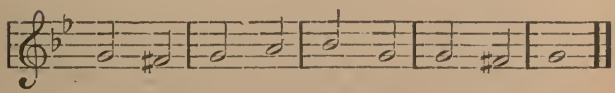
c.



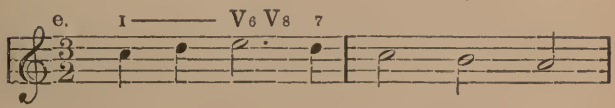


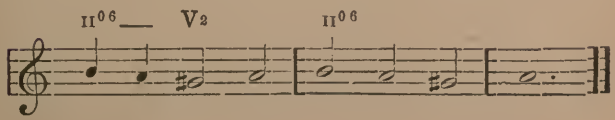
d.





e.





Lesson VII.

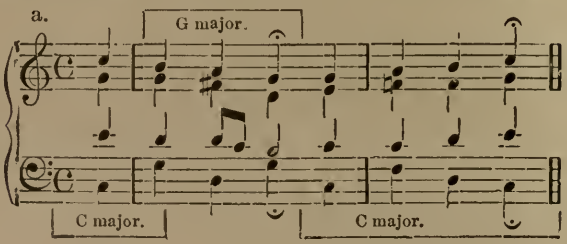
Modulation to nearly-related keys.

Modulation is a change of key without a break in either the melody or chord succession.

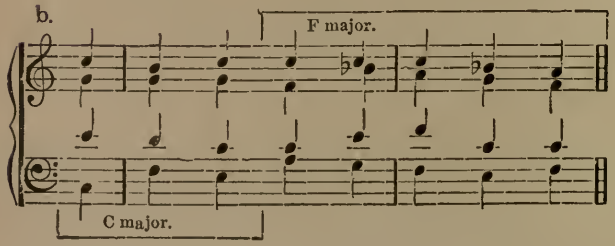
Nearly related keys may follow closely upon each other:

25.

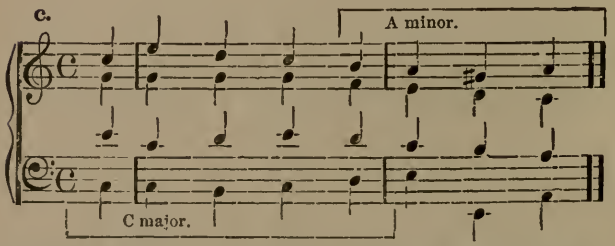
a.



b.



c.

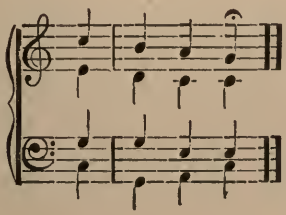


Commit No. 25, *a*, to memory and play it in every major key.

Modulations of this kind are of common occurrence, especially in the choral, or hymn tune, where a cadence (more or less complete) is required at the end of each line. The new key is not especially emphasized, and while one line of the choral may close in this new key, as in No. 25, *a*, the succeeding line may resume the original key immediately, if the melody is suited to such a progression. Modulations of a more pronounced or complete character and those which lead to keys less closely related will be treated in a later lesson.

The pupil should study the exercises before he begins to harmonize them and decide whether they cadence in a new key or not. In most cases a melody which ought to be treated as modulating will make an unsatisfactory progression if forced to remain in the original key. For example, compare the first line of No. 25. *a*, with the same line harmonized as follows:

26.

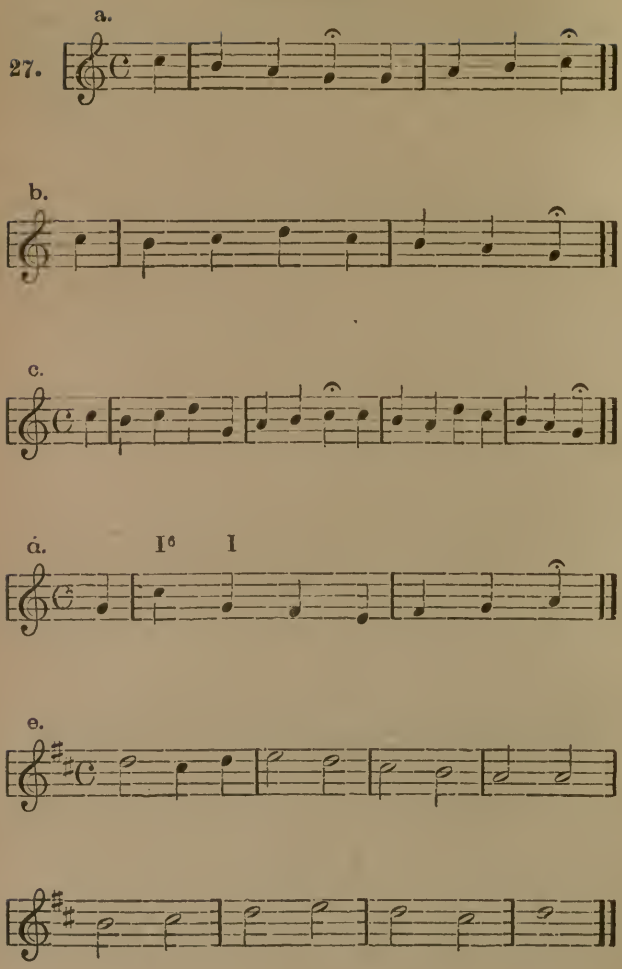


Poor. For correction see No. 25, *a*.

The comparison should be made at the piano and the pupil should see that the solution which modulates, or cadences, in the key of G is the more natural and consequently the one to be preferred.

EXERCISES.

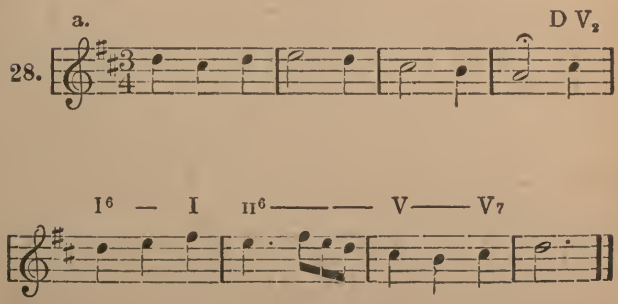
27.



Lesson VIII.

The exercises in this lesson all modulate, and the pupil should harmonize them with reference to the principles already presented. Simple part writing in the first key and then simple part writing in the new key is all that is necessary, the point where the new key enters being common ground. This is not a difficult exercise if the student will play over his solutions and study their musical effects. Such progressions as are demanded in these studies are to be found in any book of chorals or hymn tunes, and no student of music need be unfamiliar with them. To those who have difficulty in finding musical solutions, it is recommended that they study the chorals of any good collection with especial reference to these cadences at the ends of the lines. These should be played and listened to until the effect of the various cadences becomes thoroughly familiar.

EXERCISES.



b. I⁶ VII⁰⁶ V⁶V⁷ B♭ II V V⁷

c. *Hymn Tune.* 7 6 6 6

6 6 6 6/4 7 ♮

d. VI III G II⁶

e. *Hymn Tune.* 6 6 6/4

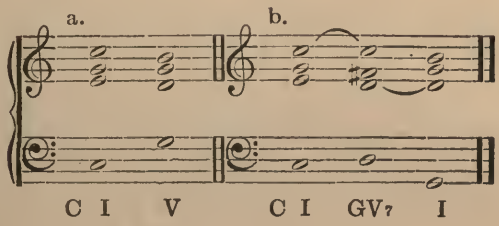
♯ 6 6 6/4 7 ♮

Lesson IX.

Modulation Through the Use of the Dominant Seventh Chord.

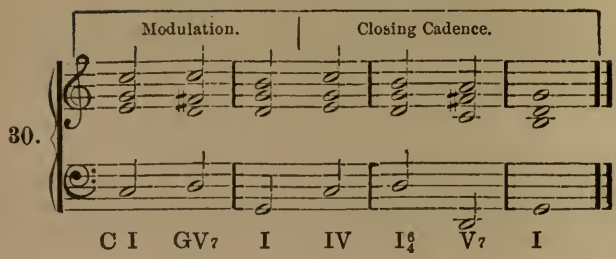
The dominant seventh is one of the chords most used for modulation because it admits of no ambiguity of key. To illustrate: the dominant seventh cannot belong (as a diatonic chord) to any key with more than one sharp because it contains c♮, and it is in no key which does not contain f♯. This locates it in G major (or g minor), and the chord to which it resolves sounds like a tonic. This may be seen by comparing the following:

29.

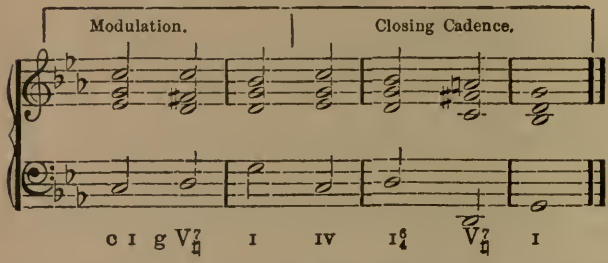


At *a*, the triad on G sounds like the dominant of C major; but at *b*, through the introduction of the dominant seventh chord, the triad on G becomes a tonic chord. To fully establish a modulation of this kind, a closing cadence must be added.

Major Key to Dominant Major.

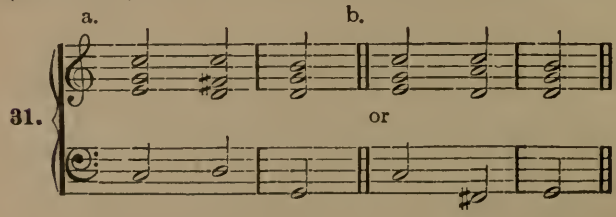


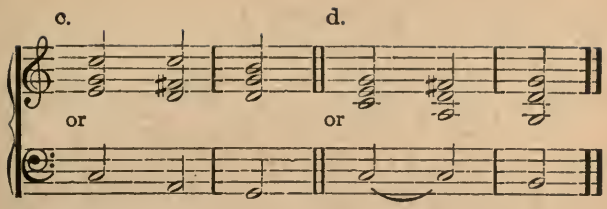
Minor Key to Dominant Minor.



Commit the two models, No. 30, to memory and play them, beginning in every key, both major and minor.

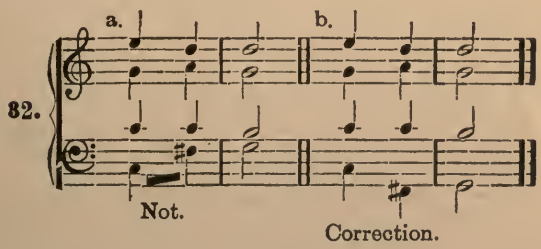
In making a modulation as in No. 30, the dominant seventh chord may be taken in any of its inversions. (See No. 31.)





Write No. 31 in every major and minor key.

NOTE.—Avoid the skip of an augmented interval in any voice; change to diminished by inversion. Thus 32 *a* is corrected at 32 *b*.



The exercises in this lesson all modulate through the use of the dominant seventh chord. They are figured as little as possible. The student should keep in mind what material is at his disposal, and with this material he should seek to write only musical solutions. In using the inversions which are permitted him, he should remember that the bass in an inverted chord is quite as much bound to move degreewise as is the case with an upper part, except in the six-four chord at the close where it may skip the octave, preferably downward.

EXERCISES.

Model.

33.

a. I$_6$ D I$_6$

34.

b. G II^6

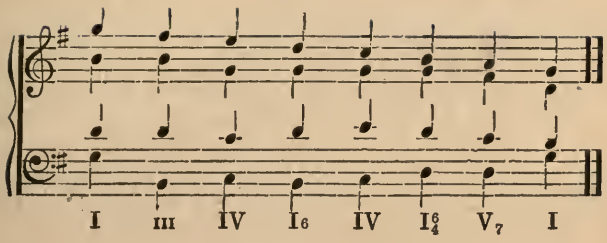
c.

Lesson X.

Commit to memory No. 35 and play it in every major key.

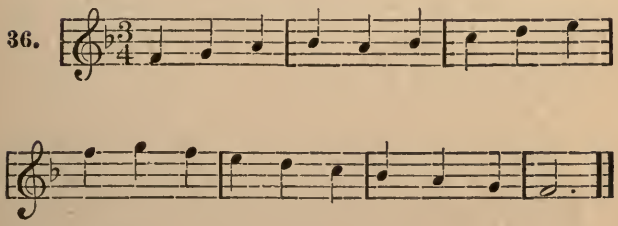
35.

I V I IV I$_6$ IV VII^{06} I



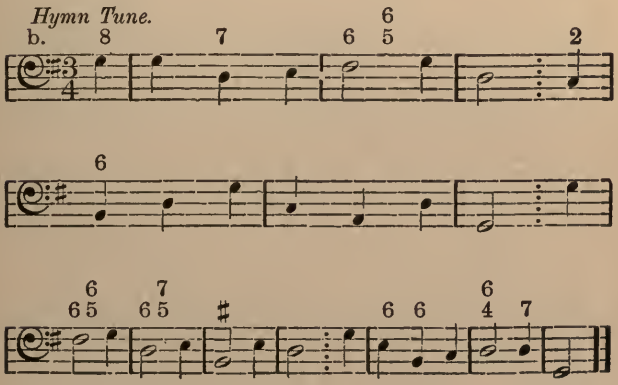
EXERCISES.

36. a.



Hymn Tune.

b.



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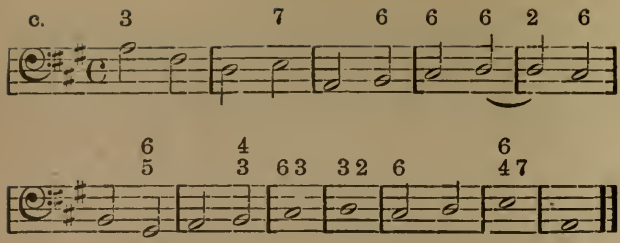
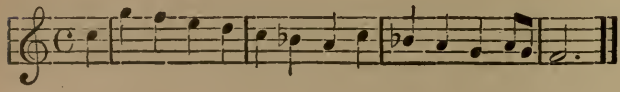


d.

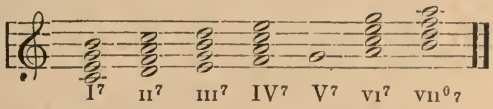


Lesson XI.

The Secondary Seventh Chords in the Major Key.

In addition to the Primary Chord of the Dominant Seventh, Secondary Seventh chords are formed upon each of the remaining degrees of the scale as follows:

37.

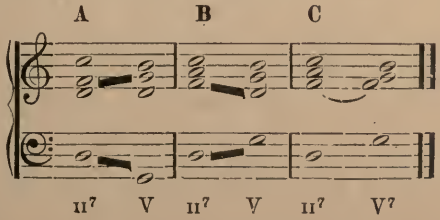


The chords, I^7 and IV^7 are major triads with a major seventh; II^7, III^7 and VI^7, minor triads with a minor seventh; and $VII^{0\,7}$, a diminished triad with a minor seventh. It should be observed that none of these is like the dominant seventh chord, which always consists of a major triad with a minor seventh.

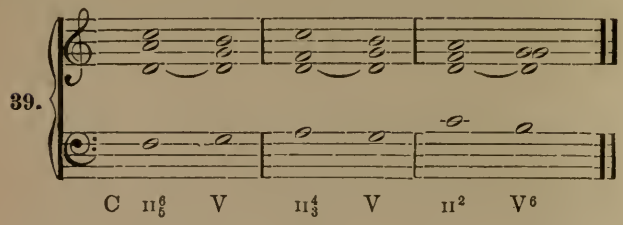
The Chord of the Seventh on the Supertonic.

Of these secondary seventh chords, the one on the Supertonic (II^7) is the most important. Its regular resolution is effected in nearly the same manner as that of the dominant seventh. The seventh and the fifth each descend one degree, and the root, when in the bass ascends a fourth or descends a fifth, or when in any other part, it remains as a binding tone. The third ascends one degree if the bass descends, as at A; descends two degrees if the bass ascends, as at B; or remains stationary when the succeeding chord appears as a dominant seventh, as at C.

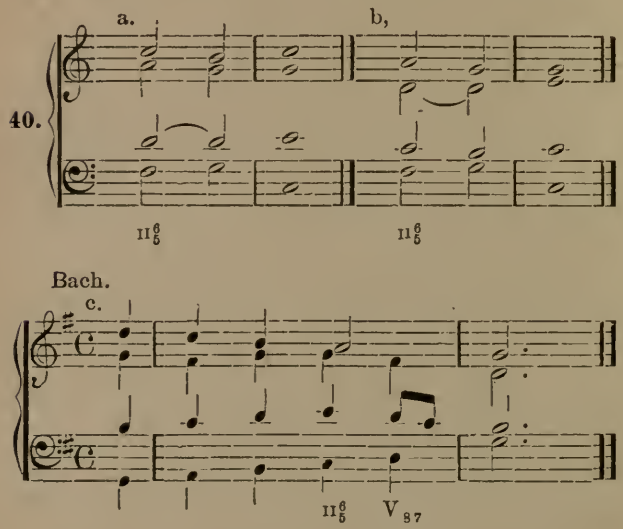
38.



Like the dominant seventh, this chord has three inversions all of which are available.



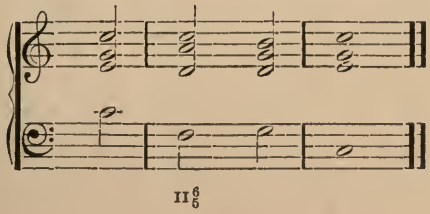
One of these inversions, the chord of the Sixth and Fifth, is of especial importance, and the student should become thoroughly familiar with it in every major key. It is this inversion of the chord which is most usual in cadences.



In writing or playing this chord, the following rule must be adhered to. The chord of the seventh on the supertonic in its first inversion, must invariably appear complete in all its parts.

Write and play the following cadence in every major key.

41.

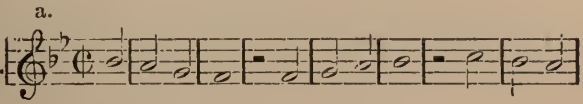


Each of the following exercises contains at least one place where II 6/5 should be used, sometimes with the entire soprano note as in No. 41, at other times with the first half of the note, as in No. 40, *c*. Only this one new chord is to be introduced; all the other material is the same as in the previous lessons. Be on the lookout for modulations, remembering that in exercises like No. 42, *a*, each phrase must have a natural cadence.

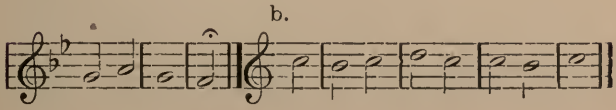
EXERCISES.

a.

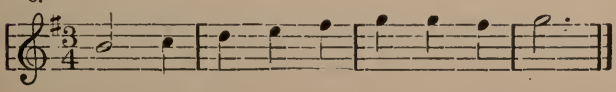
42.

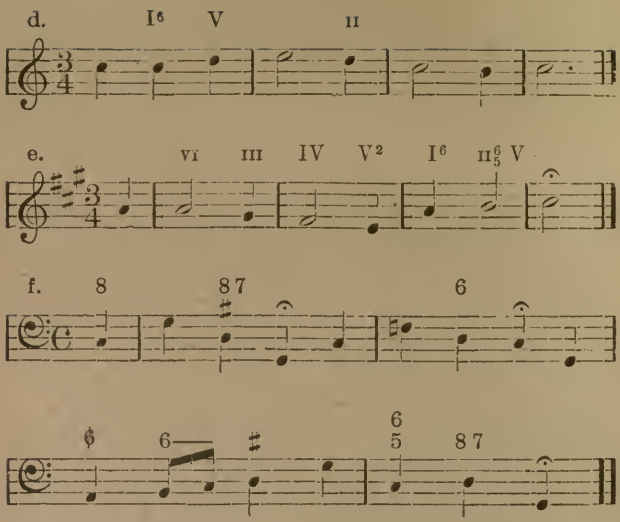


b.



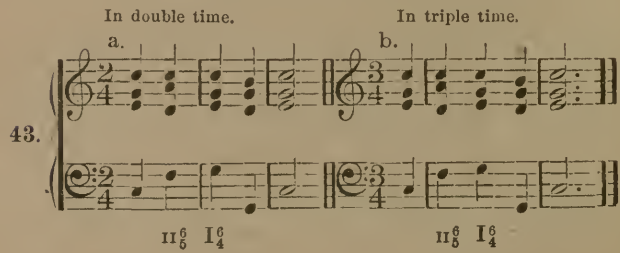
c.





Lesson XII.

In the preceding lesson the supertonic seventh chord resolved directly to the dominant harmony, No. 41. This cadence is sometimes enlarged by inserting between these two chords the tonic six-four chord, as in No. 43. In this case the seventh in II$^6_5$ remains stationary.



Write and play No. 43, *a*, in every major key.

Observe that in these cadences the tonic six-four chord always immediately precedes the dominant, and that these chords so emphatically pronounce a full close that they must not be used where a cadence is not suitable.

Preparation of the Seventh.

Thus far especial attention has been given to the resolution of the chords of the seventh, but nothing has been said of their introduction. Dissonances require careful treatment in their introduction, and most of the sevenths in the secondary seventh chords are so harsh as to require **Preparation.** A tone is *prepared* if it exists in the same voice as a harmonic tone in the previous chord. Thus in No. 43, *a*, the seventh in II$^{6}_{5}$ which appears in the soprano, is prepared, because it exists in the same voice in the previous chord as a harmonic tone. The note of preparation should seldom be shorter than the dissonance which it prepares.

Regarding the Introduction of the Dominant Seventh.

The seventh in the chord of the dominant seventh does not require preparation, but when it has appeared in the previous chord, it is best to retain it in the same voice in both chords. If the seventh cannot thus be prepared, it is well if the root be prepared. When neither root nor seventh can be prepared, these two notes should generally be approached by contrary motion. This principle applies to any chord of the seventh in which the seventh does not require preparation.

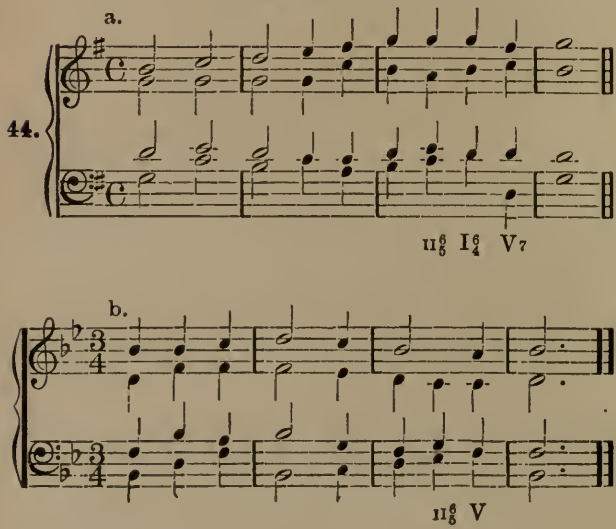
Rule: The seventh in the chord of the seventh on the supertonic must be prepared. (Exceptions to this rule are not to be considered now.)

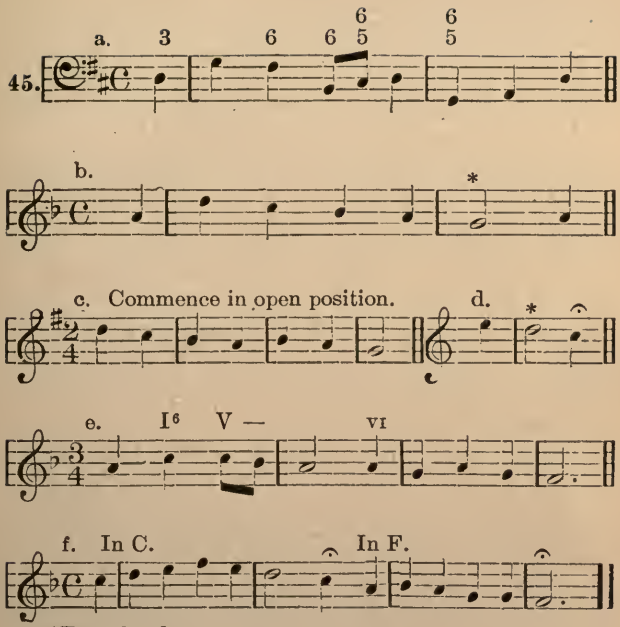
The exercises in this lesson are selected so that the cadences should be made through the use of II$^{6}_{5}$, but not always with the insertion of the tonic six-four chord. Other forms of cadence are quite possible, but the pupil

must rather make it a point to master the one in question, than to seek a variety of forms, at least for the present. Care should be used in the selection of each solution. If the exercise sounds unmusical, or the voices are led awkwardly, the work is not well done. The chords now at the disposal of the student are sufficient to permit a thoroughly musical treatment of the little melodies given. Indeed some excellent chorals contain no material with which the student is now unacquainted. It is strongly recommended that the student play many of the short exercises when correctly solved, in as many keys as possible, seeking rather to use few materials fluently than many chords merely in writing.

EXERCISES.

Models.



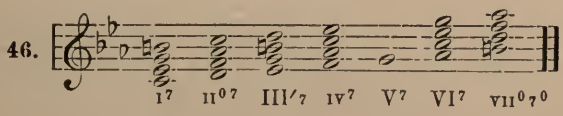


*Two chords.

Lesson XIII.

The Chord of the Seventh on the Supertonic in the Minor Keys.

Secondary seventh chords are formed upon the degrees of the minor scale, with the exception of the fifth degree.



These chords are formed as follows :

I^7, a minor triad with major seventh.

II^{07}, a diminished triad with minor seventh.

III'^7, an augmented triad with major seventh.

IV^7. a minor triad with minor seventh.

VI^7, a major triad with major seventh.

VII^{07^0}, a diminished triad with diminished seventh.

Some of these chords are of little value and rarely used, while others are of considerable importance. We shall at present use the supertonic seventh chord only. It is treated quite the same as the supertonic seventh in major. It is best to use it in its first inversion, $II^{0\,6}_{5}$, it should be complete in all its parts, and the seventh should be prepared. The exercises will now cadence with this chord, every one in this lesson being given with especial reference to this progression.

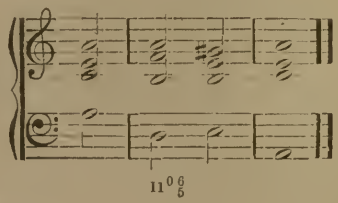
EXERCISES.

Cadence in minor with $II^{0\,6}_{5}$

Write and play No. 47

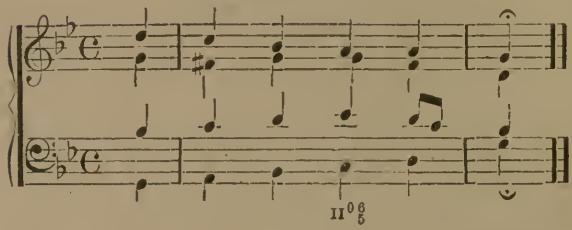
in every Minor key.

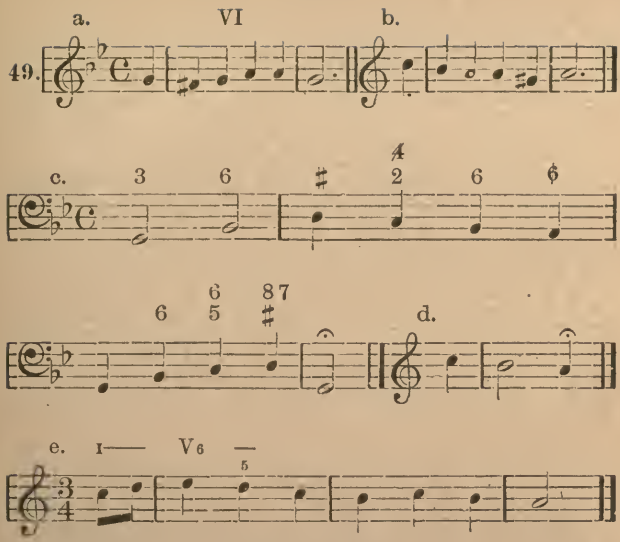
47



Model.

48.





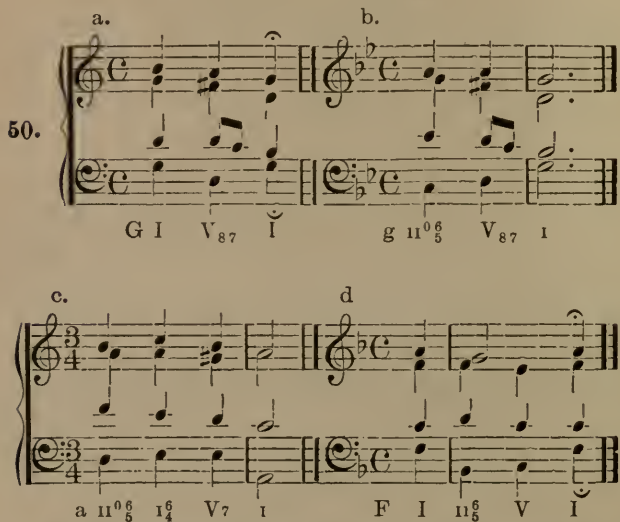
Lesson XIV.

Cadences.

Nearly all the exercises thus far have been fragmentary for the purpose of presenting over and over again, a limited number of the most used chord progressions, especially in cadences. We have seen that where a bit of melody, as a line of a choral, closes in a key not indicated by the signature of the piece, it still cadences with simple material. That is to say, whether we write a cadence in C, or G, or F, or any other key, the material is practically the same, i. e., IV, $V^{(7)}$, I; or I^{6}_{4}, $V^{(7)}$, I; or II^{6}_{5}, $V^{(7)}$, I; in whatever key is entered. In these cadences the dominant harmony may generally appear either as a triad or a chord of the seventh, at pleasure. The important thing is that these few forms be perfectly familiar to the student in all keys.

All the exercises in this lesson consist of the last few notes of melodies in previous lessons. Here the student must decide for himself in each case, whether the cadence should be in the major or the minor key. Where either mode is satisfactory, a solution in each should be written. The notes given may not always cadence in the key which corresponds to the signature. In this case they are from a line of a choral, which modulated, and in such a case care must be taken to discover the new key and use the necessary accidentals. It should be observed that these lines which cadence in a key not corresponding to the signature are always to be found in the course of the piece, (if they appear at all) and not at the end, for a complete piece of music must close in the same key in which it began.

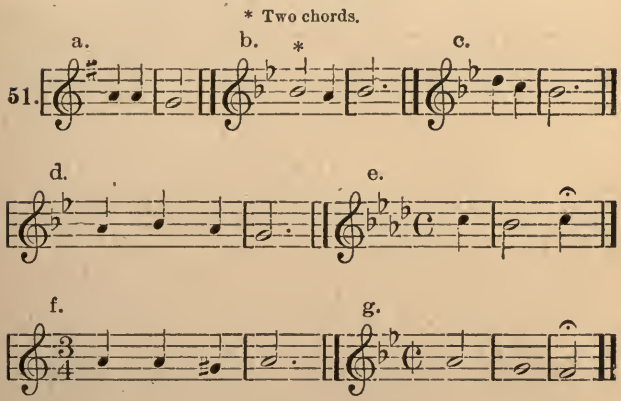
MODELS OF CADENCES.



Play each cadence in No. 50 in at least two other keys.

(In this work at the piano the pupil is expected to play from the book, but not from a copied transposition of the cadences.

EXERCISES.



Lesson XV.

The Half Cadence and the Deceptive Cadence.

As has been seen, each line of a choral needs a cadence in some form, and to add interest one or more of the lines have often closed in a related key. Another useful close for any line except the last one is the Half Cadence.

A Half Cadence is a cadence in which the final chord is the dominant triad preceded by the tonic triad. As the name implies this close is only partial, and not available at the end of a piece, but it is often better to close some of the lines with a half cadence than to use a full close on the tonic too often.

Half Cadences.

52. a. Bach.

I V

Half Cadence.

b. Tansur.

I V

Half Cadence.

A Deceptive Cadence occurs when the dominant seventh chord, instead of resolving to the tonic triad, progresses to some other chord. The most common deceptive cadence is that in which the dominant seventh chord resolves to the triad on the sixth degree.

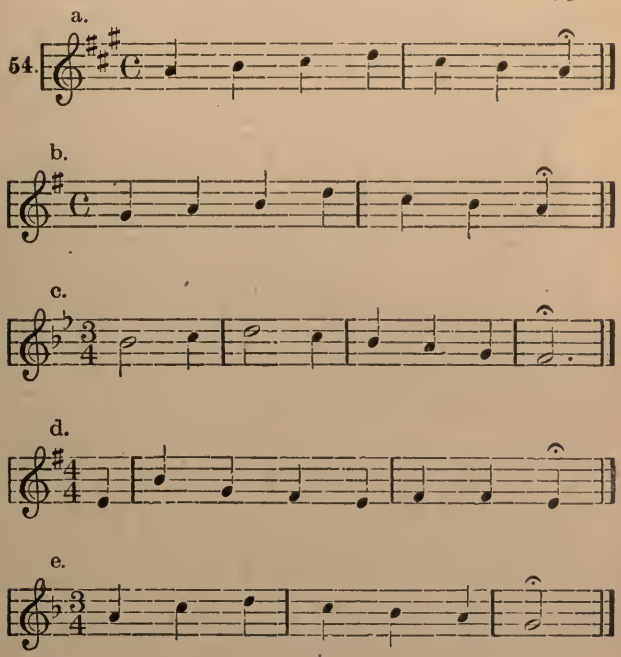
53. Wm. Mather.

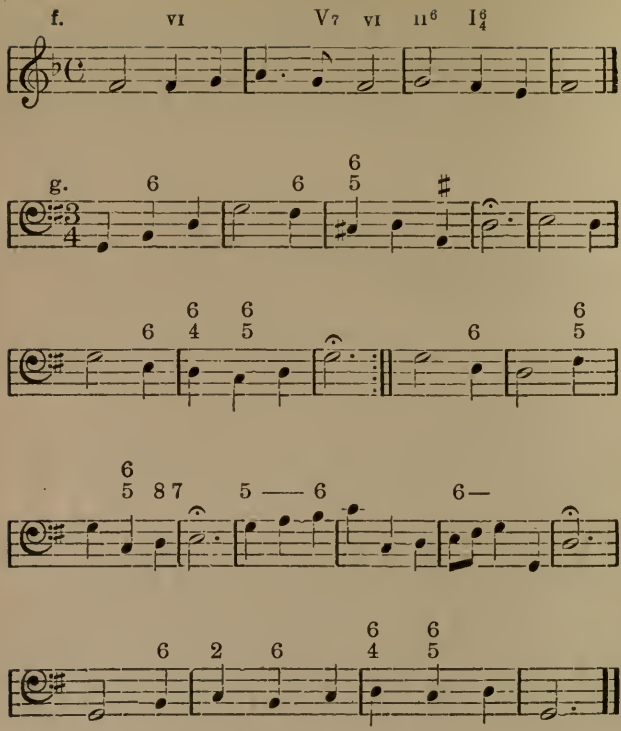
G V7 VI

Deceptive Cadence.

In the following exercises opportunity is offered to write quite a variety of cadences, viz., the half cadence, the deeeptive cadence, the complete cadence in a related key, and the complete cadence in the tonic key, employing the supertonic seventh, or the tonic six-four chord, or both. Distinguish carefully these various forms and write the name of each cadence over the prepared exercises. No. 54, *g*, may be treated as one problem or as five short ones, each ending at the hold.

EXERCISES.





Lesson XVI.

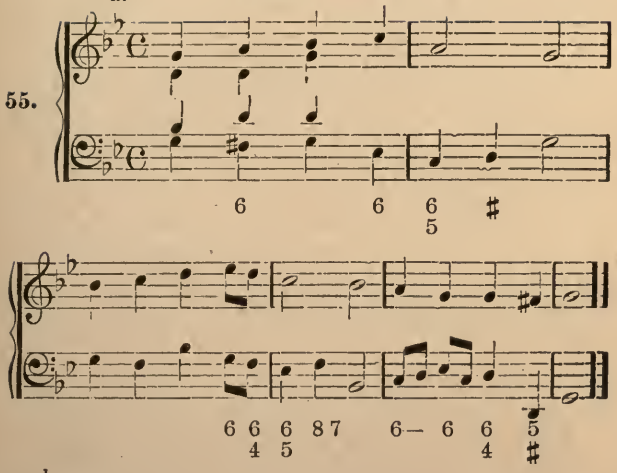
Review Lesson from Bach's Figured Chorals.

To the given bass and soprano add the alto and tenor according to the figuring. In addition to this written work, the teacher will assign review work at the piano according to his judgment.

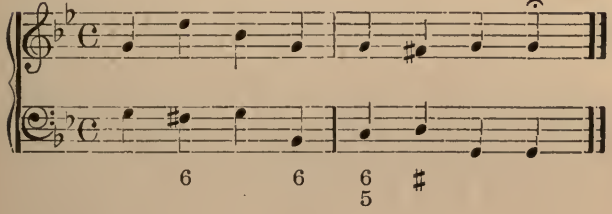
EXERCISES.

a.

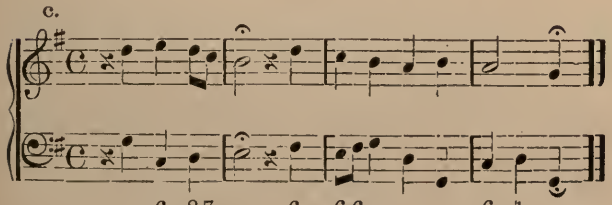
55.



b.



c.



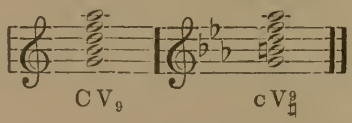
Lesson XVII.

The Chord of the Dominant Ninth.

The Chord of the Dominant Ninth is formed when the dominant seventh chord is enlarged or extended, by the addition of a third above the seventh, as follows :

Chords of the Dominant Ninth.

In major. In minor.

56. 

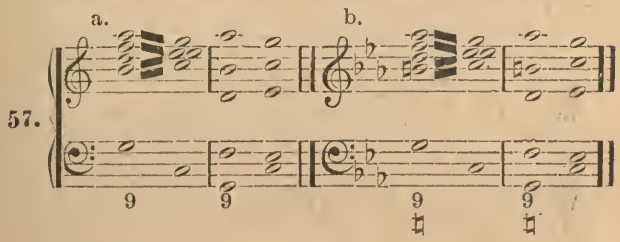
*Chord of the Major Ninth. Chord of the Minor Ninth

*Note,—In the major key this ninth is a major ninth above the root and in the minor key, a minor ninth above; hence the terms.

Do not consider this as a new chord, but simply as a dominant seventh chord with an interval added. The presence of the ninth does not in any way alter the natural resolution of the underlying seventh chord, except that the fifth (when present) ascends one degree to avoid consecutive fifths. This is true in both the major and the minor modes, even though in the latter case the fifths are in the order of diminished to perfect. The student should observe that the complete dominant ninth chord (5 part) resolves to the tonic triad in such a way that the triad necessarily appears with its third doubled. This has also an important bearing on the resolution of the dominant ninth with root omitted, in succeeding lessons.

In the major key the ninth is dissonant to both the root and the third ; and in the minor key, to the root, third and fifth. This makes it, like the seventh, a strong tendency-tone requiring resolution one degree downward.

Resolution of the Complete Dominant Ninth Chord.



Since most music is written in four parts, it is evident that some interval of this chord must be omitted. The fifth, being the least essential is the part generally left out. (The dominant ninth chord with the *root* omitted will be treated in lessons XIX and XX.)

When in the fundamental position, this chord is figured simply 9, or (in minor) $\frac{9}{\natural}$, $\frac{9}{\sharp}$, etc., the sharp or natural referring as usual to the third above the bass.

INVERSIONS OF THE DOMINANT NINTH.

On account of the harshness of the ninth in certain positions, its use is subject to some important restrictions, as follows:

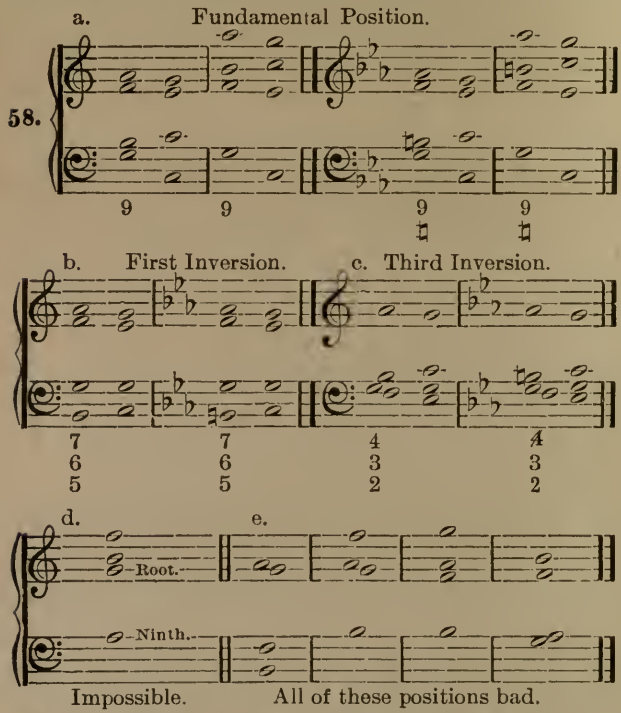
1. The ninth (the third above the seventh) must never appear less than a full ninth above the root. This makes the fourth inversion impossible, 58, *d*, and always necessitates care in the arrangement of the parts, 58, *e*.

2. Neither the seventh nor the third of the chord should be omitted. This makes it impossible to write the second inversion in four part harmony.

3. The chord always sounds best when the ninth is in the soprano. For this reason the student is asked to use the ninth in the highest voice only.

We are therefore limited, in four-part writing, to the fundamental position, and the first and third inversions, none of which violate the foregoing restrictions.

Resolutions of the Dominant Ninth, in four-part harmony, in its fundamental position and the two available inversions.



Write and play the chord of the Dominant Ninth and its admissible inversions with their resolutions in every major and minor key. In some keys use close position, in others, open.

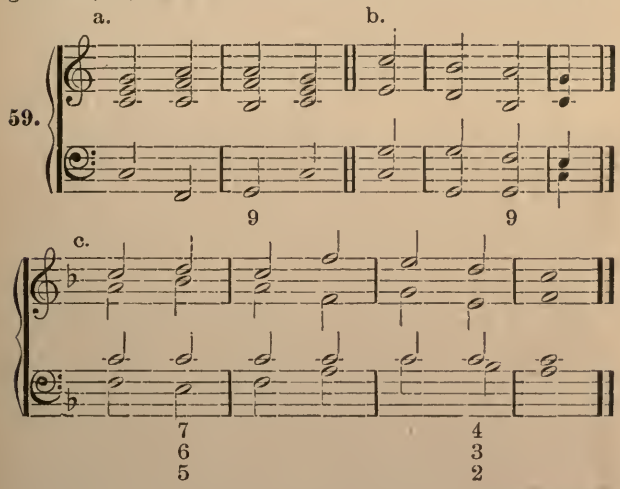
NOTE.—Some schools of harmony, notably the English, consider not only chords of the ninth, but also chords of the eleventh and thirteenth, as distinct chords; while some of the highest German authorities treat all combinations beyond the chord of the seventh as incidental chord formations best explained as involving suspensions or passing tones. A discussion of the relative merits of these views does not belong here, but in advanced study the student can hardly afford to ignore either standpoint.

Lesson XVIII.

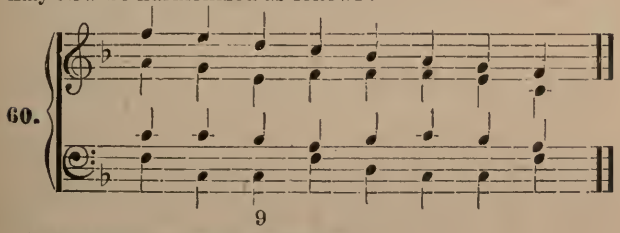
Application of the Dominant Ninth in Exercises.

The chord of the ninth is best introduced in one of the following two ways:

1. When the ninth is prepared, 59, *a*.
2. When the root is prepared and the ninth enters degreewise, 59, *b* and *c*.



By using the chord of the ninth, the descending scale may now be harmonized as follows:

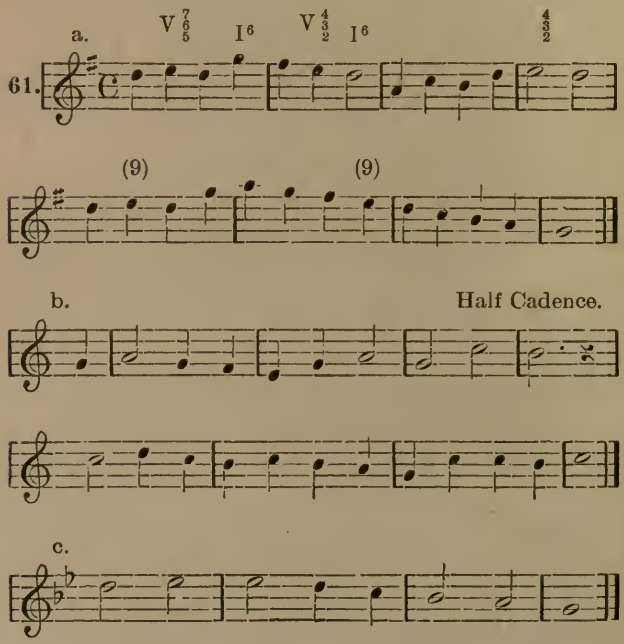


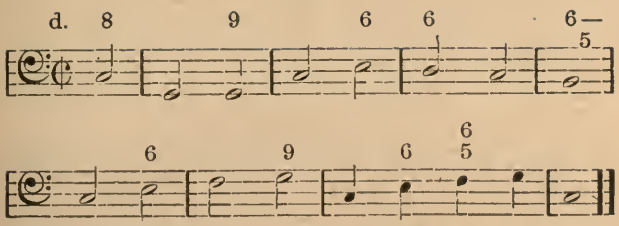
Play No. 60 in every major key.

The descending minor scale, harmonic form, might be harmonized in the same manner, but on account of the augmented second which this presents, we shall not use it here.

Harmonize the following exercises in four parts, using the chord of the ninth and its available inversions. A figure 9 in parenthesis calls for a chord of the ninth, but leaves the pupil to select the fundamental position, or an inversion, as he may think best. Where no figuring is given, endeavor to locate the chord of the ninth in the most suitable places.

EXERCISES.





Lesson XIX.

The Chord of the Seventh on the Leading Tone in the Major.

The Chord of the Seventh on the Leading tone, in Major (see example 37) comprises the upper four parts of the chord of the major ninth. It is practically a dominant ninth chord with the root omitted, and is treated as such in every respect, although for the sake of simplicity it is figured like a chord of the seventh.

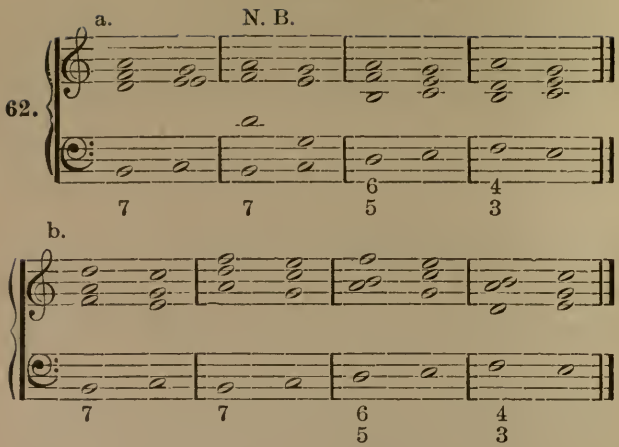
It resolves to the tonic triad with doubled third. At N. B. No. 62, the doubled third is avoided by a skip in the tenor. With this particular arrangement of the chord the effect is good, but this is clearly exceptional, and in every other case the pupil is recommended to resolve each of the four voices degreewise. Where the third lies above the seventh, it may descend parallel with the seventh, avoiding in this way the doubled third, but this arrangement of the seventh chord is not altogether satisfactory.

The fifth may resolve degreewise upward where consecutive fifths do not result. Ex. 63.

The seventh (the original ninth) ought always to appear in the highest voice if the most satisfactory effect is to be obtained. The examples under 62, *a*, are therefore preferable to those at *b*, although the latter are not forbidden.

The seventh (the original ninth) is wholly unsatisfactory in the bass, thus making the third inversion valueless.

No tone in this chord is either doubled or omitted.

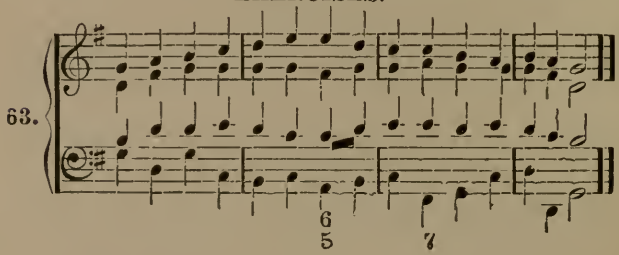


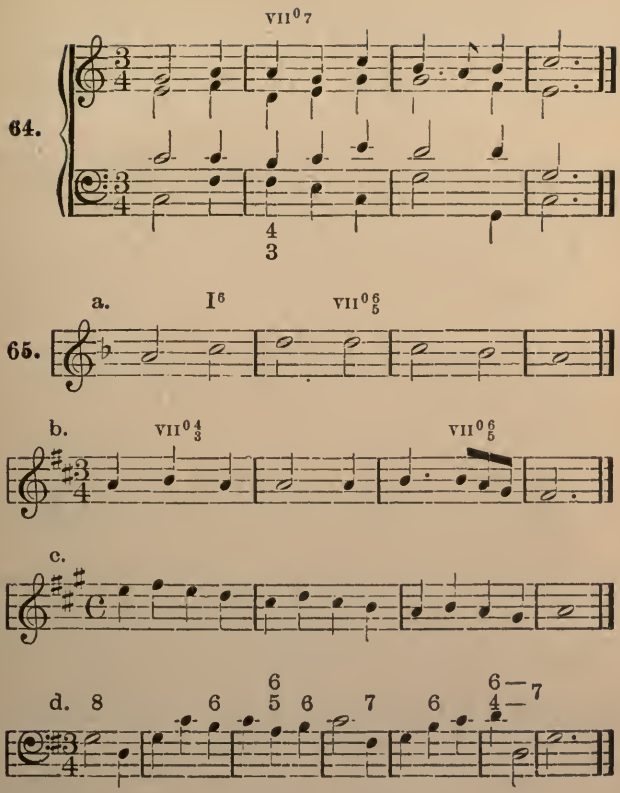
The pupil should not lose sight of the fact that the real root, or generator, of this chord is the dominant, the tone omitted. This view of the chord becomes even clearer through the following experiment at the piano:

Strike the chord of the seventh on the leading tone, and sustain it, then add below it the dominant. This added tone in no way contradicts the harmony of the other four tones but rather serves to strengthen and support them, supplying a tone which the ear welcomes as the omitted fundamental.

In this chord neither seventh nor root requires preparation, but when there is no preparation approach them in contrary motion.

EXERCISES.



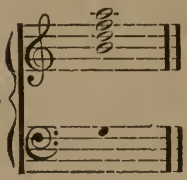


Lesson XX.

The Chord of the Diminished Seventh.

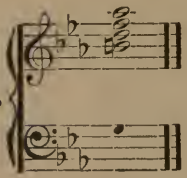
The chord of the seventh on the leading tone in the major key, has shown itself as an incomplete form of the dominant major ninth. The chord of the seventh on the leading tone in the minor key, called the Chord of the Di-

minished Seventh, is an incomplete form of the dominant *minor* ninth, and is in general, subject to the principles already laid down in the previous lesson. Compare Nos. 66 and 67.

66. 

Chord of the Seventh on the leading tone in Major.
(Dominant Major Ninth with root omitted.)

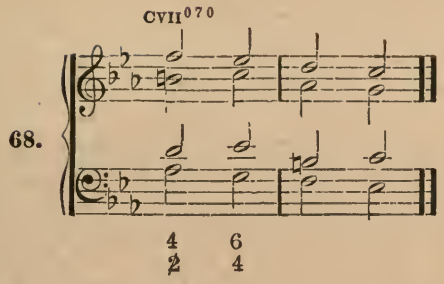
Omitted root.

67. 

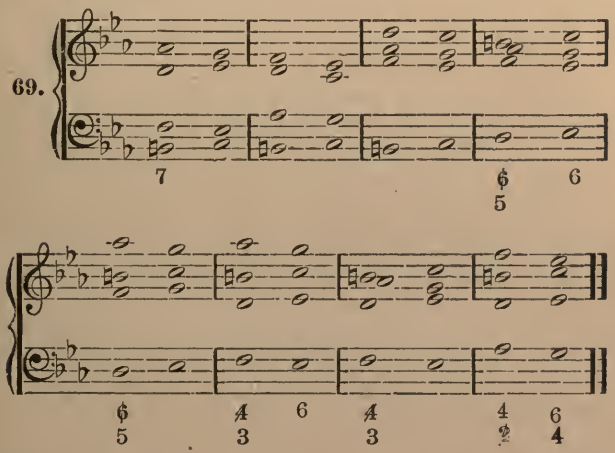
Chord of the Diminished Seventh.
(Dominant Minor Ninth with root omitted.)

Omitted root.

The chord of the diminished seventh consisting, as it does, of three minor thirds, presents no perfect consonance between its intervals in any position or inversion. This permits great freedom in its use and it is without question one of the most important of the seventh chords. Neither its seventh nor its root needs preparation, and it can be approached in similar motion of all the voices without restriction. It is valuable in all of its inversions and with any of its parts in the highest voice, but it is still to be observed that the third inversion is the least adaptable in practice, since it resolves to the tonic six-four, a chord which always requires careful treatment. If the six-four chord does not appear in the usual manner in the cadence, it should at least enter with a degreewise progression of the bass as in No. 68.



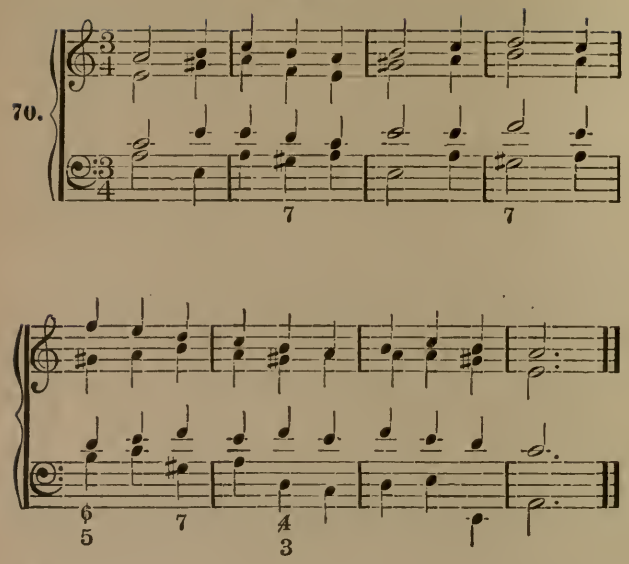
A few of the usual resolutions of the diminished seventh chord are given in No. 69. It is unnecessary to multiply examples. Resolve the seventh degreewise downward, the root, degreewise upward, and lead the other parts so as to avoid forbidden consecutive fifths.

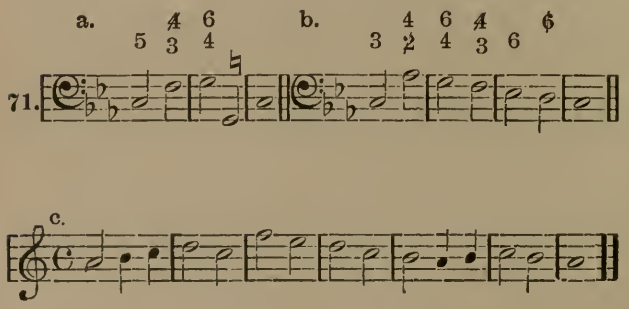


Play the chord of the Diminished Seventh and all its inversions with resolution in every minor key.

EXERCISES.

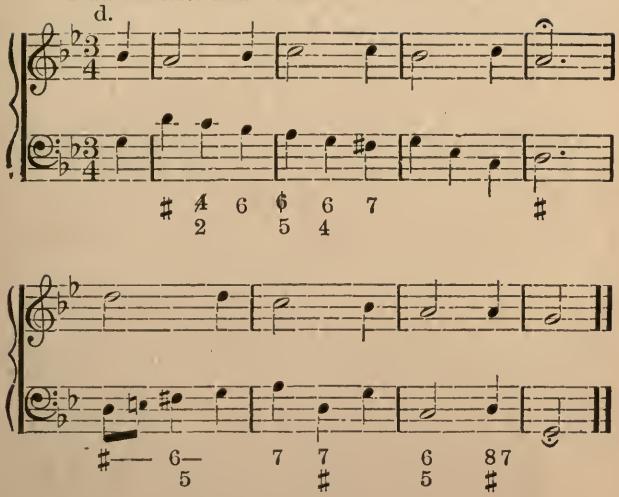
Model.





Add the Alto and Tenor.

d.



Lesson XXI.

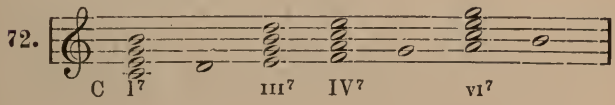
THE CHORDS OF THE SEVENTH ON THE REMAINING DEGREES OF THE SCALE IN BOTH THE MAJOR AND MINOR KEYS.

THE PASSING SEVENTH.

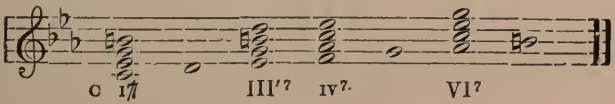
The chords of the seventh which still remain unused in these lessons are shown in No. 72.

a. In major.

72.



b. In minor.



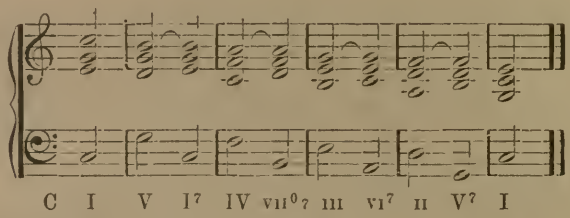
Not all of this material is practical for our present use. In fact with the exception of a brief general view of these chords they may well be left until a study of the suspensions, passing tones and passing chords gives the pupil a maturer view.

In some works it is pointed out that all chords of the seventh have the, so-called, cadencing resolution to the chord situated a fourth higher, just as the dominant seventh resolves, or cadences, to the tonic harmony, and the supertonic, to the dominant. This is, however, only partially true.

Remaining Seventh Chords in Major.

In the major key the chords, III^7 and VI^7, take readily this cadencing resolution, since their sevenths are minor, but I^7 and IV^7, containing, as they do, the harsh major seventh, are less manageable and generally need the support of a sequence to make them satisfactory if they are to cadence in this way. No. 73. (It must be understood that the passing seventh is not at all considered in this connection.)

73.

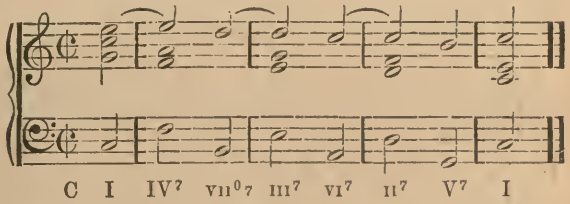


Notice also that the chord of the seventh on the leading tone does not take its regular resolution to the tonic as heretofore, but cadences like the other seventh chords *to preserve the sequence*, No. 73. Care is to be used everywhere to see that all these sevenths are prepared and properly resolved.

Sequences of successive chords of the seventh are sometimes written. In this case the fifth is omitted in alternate

chords of the seventh, *provided the chords are in their fundamental position*, but not otherwise, No. 74. In such progressions the third of one chord prepares the seventh in the next and so on throughout.

74.

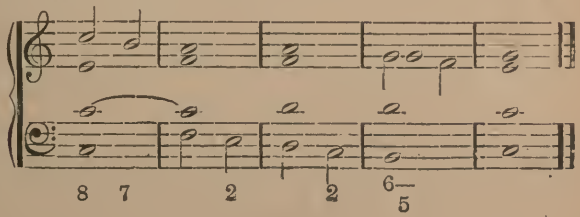


In examples 73 and 74, the major sevenths in I^7 and IV^7 resolve downward, conforming to the general requirement of the cadencing resolution, partly on account of the sequence. Except under circumstances of this kind the seventh in these two chords is quite as likely to resolve upward, when it becomes a retardation (to be treated later) rather than a seventh.

Passing Sevenths.

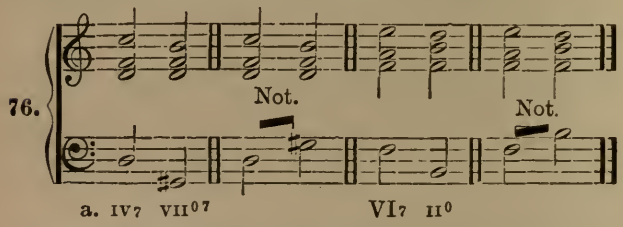
The figures 8 7, $6\frac{}{5}$, or 2, have often been applied to the dominant harmony, and the student is familiar with the dominant triad followed by the dominant seventh as a passing tone (called *passing seventh*) first shown in these lessons in example 10, C. In this manner the seventh may be added to any triad, and when so used the harshness of the seventh even in I^7 and IV^7 disappears. No new figuring is needed for this. No. 75.

75.



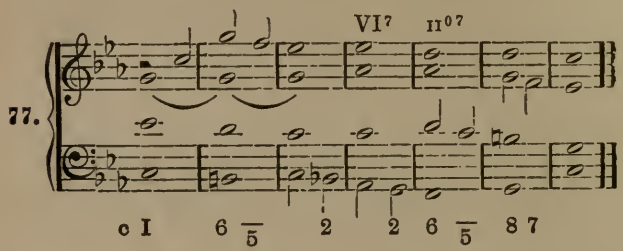
Remaining Seventh Chords in Minor.

In the minor key the chords IV^7 and VI^7 can be given the cadencing resolution, but they rarely so appear. In neither case can the bass make the skip of a fourth upward because this fourth is augmented, hence the skip of the diminished fifth downward becomes a necessity.



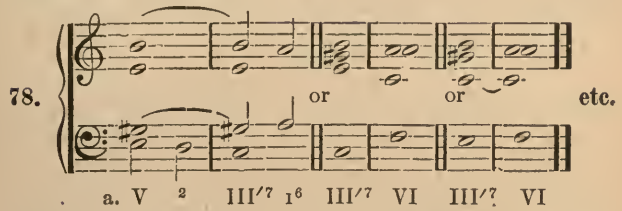
These chords oftenest appear as mere triads to which the passing seventh is added. See No. 77, measures 4 and 5.

The seventh in I^7 (72. *b*,) will only appear as a retardation not to be used at present. But when the seventh is used as a passing seventh, which is often the case, the original form of the minor scale is always used instead of the leading tone, and this is a form of the tonic seventh chord which is always useful. See No. 77, 3d measure.



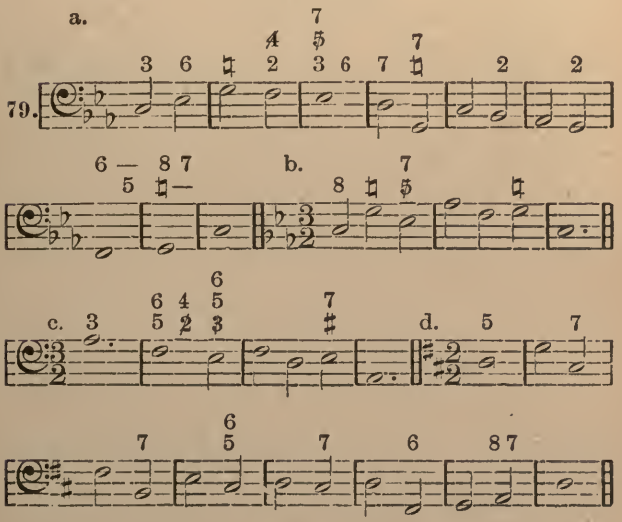
The seventh chord on the third degree, III′^{7} can be given the cadencing resolution, but will oftener show itself

as formed through the use of the before mentioned suspension and retardation.

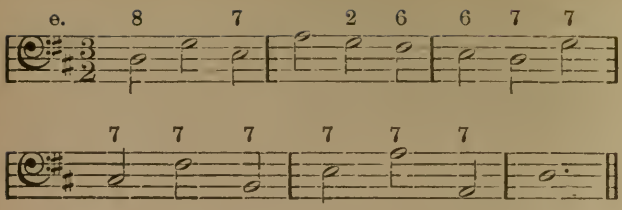


This chord, last shown and least valuable for our present use, closes the list of seventh chords formed from the tones of the diatonic scale. One might analyze many pages of the best music without finding all of these chords, but an acquaintance with the structure and treatment of each is essential for successful further study.

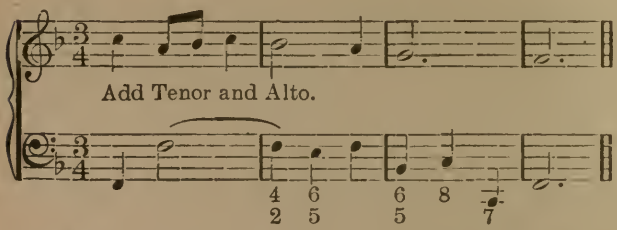
EXERCISES.



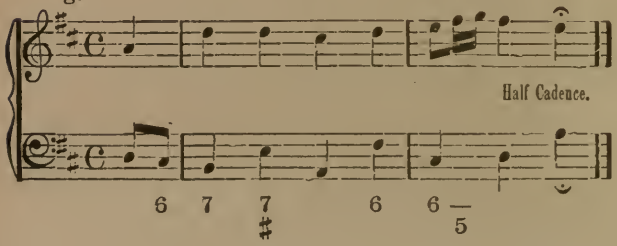
e.



f.



g.

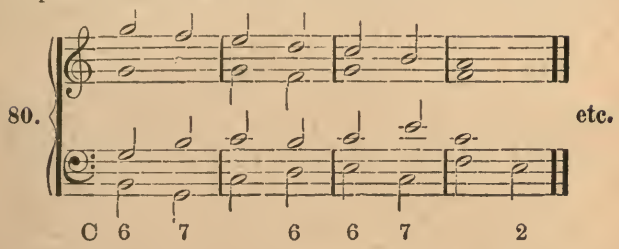


Lesson XXII.

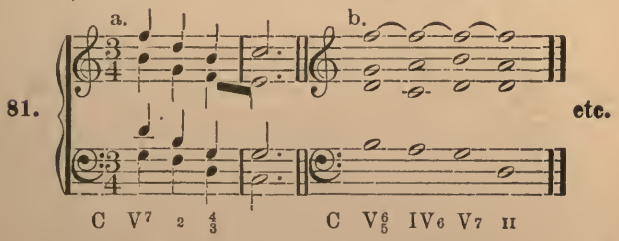
Regarding Greater Freedom in the Treatment of the Seventh.

It was shown in No. 19, B, that any or all of the voices may change their position freely without regard to a binding tone, so long as the chord remains the same This remains true also with any triad to which its seventh is afterward added as passing seventh, No. 80. In such a

case there is no objection to having the root taken by a skip in similar motion with the seventh.



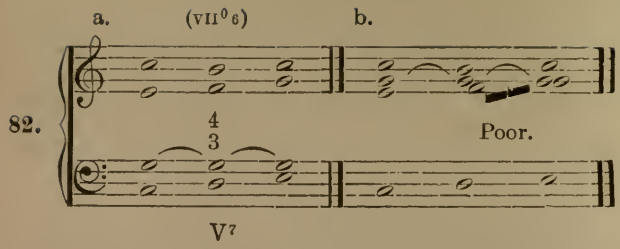
All the voices in a chord of the seventh may change their position freely while the chord remains the same. In this case the voice which has the seventh last must resolve it. No. 81, *a*.



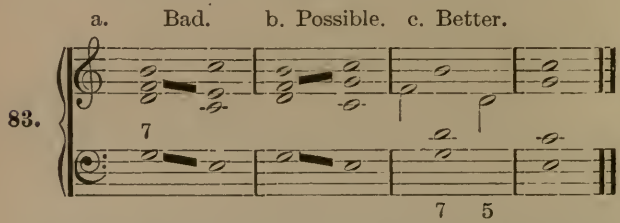
Instead of resolving in the usual manner, the seventh of the dominant seventh may remain stationary if contained in the following chord as in 81, *b*.

The seventh may ascend when the bass progresses degreewise upward to the tone of resolution (or its octave) as in No. 82, *a*. Such a progression is to be considered as VII^{06}—I^{6} with which we are already familiar, the root of V^{7} being looked upon as a stationary voice (organ point or pedal—in later lessons.)

In this progression, 82, *b*, is forbidden, because it is in poor taste to have any voice progress obliquely into the unison as is done here by the tenor.

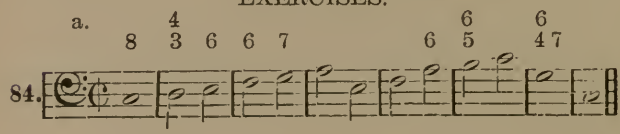


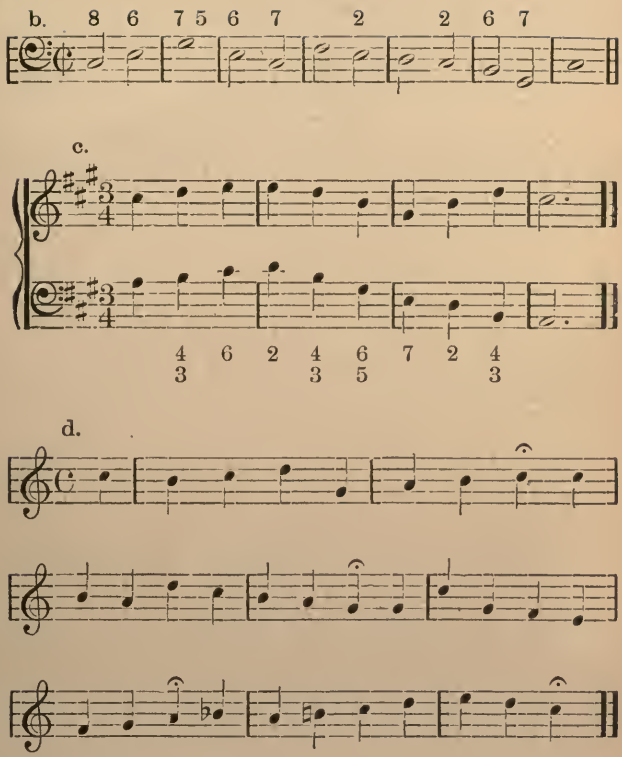
When the bass skips a third downward from the root of a seventh chord as at 83, *a*, it is impossible to lead the seventh down on account of the covered octaves which result. A common remedy for this is to lead the seventh directly upward as at 83, *b*, but even this is not fine The voice having the seventh should be allowed to skip first to the fifth of the first chord, 83, *c*. It is to be observed that the covered octave in 83, *a*, is in all cases objectionable and is to be avoided without exception.



In the following exercises there will be a few places to use these less common progressions; otherwise this lesson and the two following consist of review exercises.

EXERCISES.





Original Work.

Select a stanza of a Long Meter Hymn and set it to suitable music as a choral for the usual four voices. Close the first line with a half cadence, the second with a cadence in the dominant key, and the other two as you think most suitable.

Lesson XXIII.

EXERCISES.

a.

85. Add Alto and Tenor.

b.

c.

d.

e.

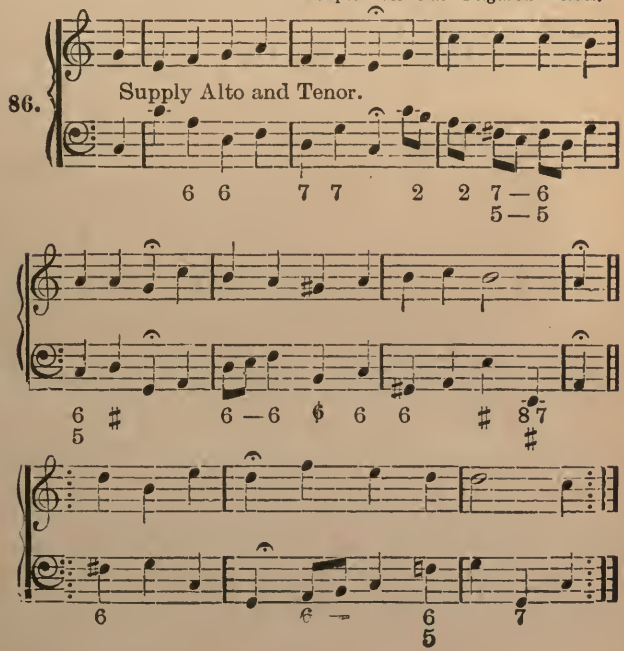
Original Work.

Set a stanza of a Short Meter Hymn to suitable music for the usual four voices. Cadence the lines as you think will be most interesting. Use no chords nor progressions which you cannot clearly justify according to the principles already learned.

Lesson XXIV.

The choral here given is one of the easiest of that interesting collection of figured chorals of Johann Seb. Bach, taken from Schemelli's Gesangbuch. The collection contains seventy-five chorals from Bach's own hand, with the figures only to indicate what the alto and tenor should be. We shall make the acquaintance of a number of these in the next term's work. From the end of one line of a choral to the beginning of the next, Bach disregards the appearance of octaves and fifths, even though they be consecutive. This is because in a sense each line is a complete idea, and somewhat removed from what follows.

Adapted from Bach's figured chorals.



Part III.

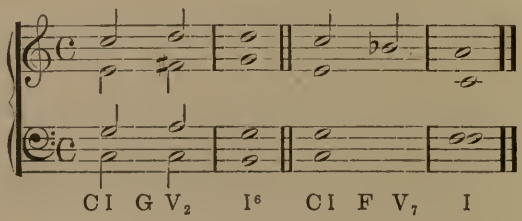
DIVISION I. MODULATION.

Lesson XXV.

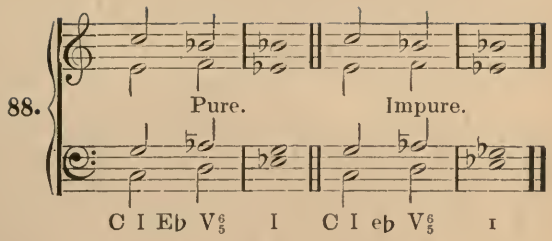
FROM THE TONIC OF THE OLD KEY TO THE DOMINANT SEVENTH OF THE NEW KEY.

An interesting as well as practical means of modulation is made by entering a key by way of its dominant seventh Fig. 87.

87.

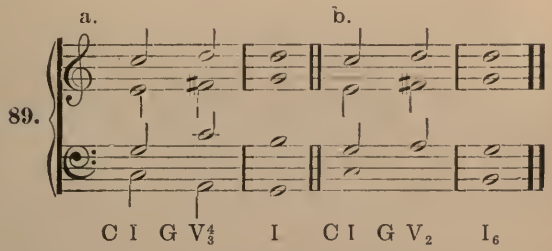


This means of modulation is used by some authorities in modulating from any key (major or minor), to any other key (major or minor). This, however, is not possible when the modulation is to be pure in mode. RULE: "*A modulation is pure in mode when the third of the new tonic triad, or its enharmonic equivalent, is contained in the old key*" Fig. 88. In minor keys the notation of either the original or harmonic forms may be used.



There is but one exception to the above rule, that of modulating from a major key to the sub-dominant minor (C–f). Why this is pure will be explained under the head of modulations to the sub-dominant keys.

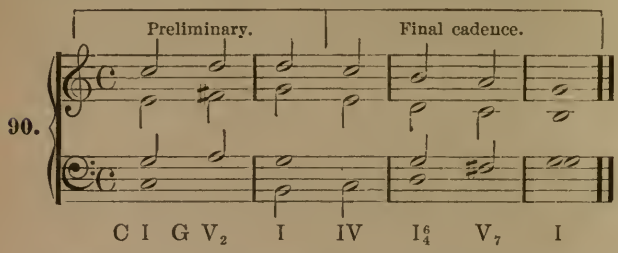
The progression to the new dominant seventh is made by going to the *nearest chord tones.* There are modulations where a strict adherence to the above is not necessary (Fig. 89 *a*), but in *all* cases the modulation is smoother and the keys are better connected, when the nearest chord tones are taken as in Fig. 89 *b*.



The dominant seventh of the new key is best taken at its first appearance, in one of its inversions, as in Fig. 89 *b*.

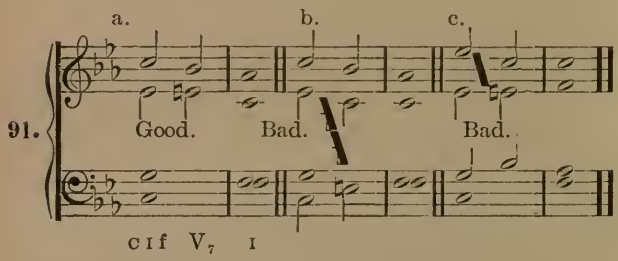
A dominant seventh foreign to the old key and regularly resolved, does not of itself constitute a modulation; it is necessary to add still another, a final cadence. In other

words a modulation to be permanent, by this means, must contain a preliminary and a final cadence as in Fig. 90



Cross relation is to be avoided; *i. e.*, any tone that is to be chromatically altered must not be doubled, and the alteration must occur in the same voice.

There are exceptional cases, where it is good to double the tone that is to be chromatically altered. Attention will be called to these as they occur.



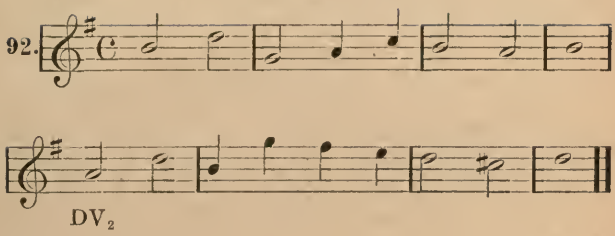
The modulation in the present lesson is to the dominant key and is most frequently used in modulating from major to major, or minor to minor keys. Fig. 91. It is, however, good to interchange the modes as far as the rule permits.

Be prepared to play and write modulations to the dominant key, when a key is given; also selecting your own key.

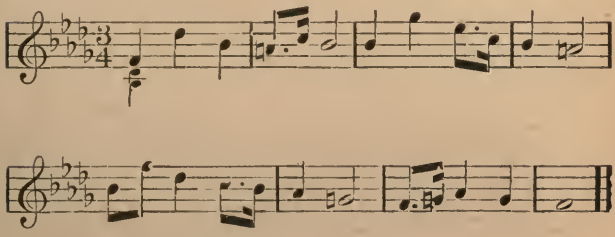
EXERCISES.

a.

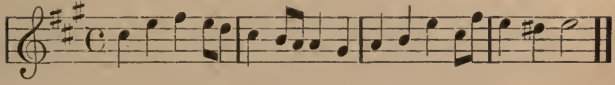
92.



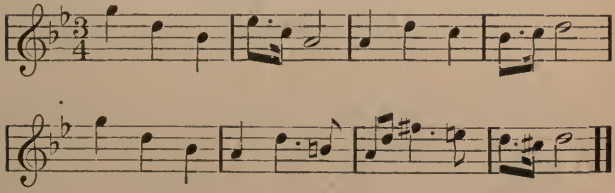
b.



c.



d.

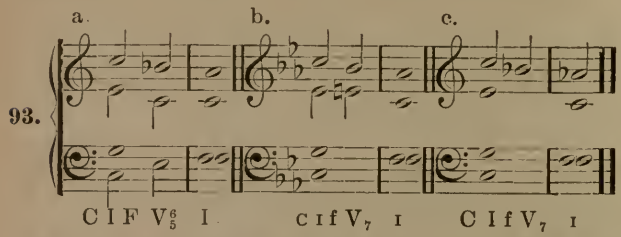


Lesson XXVI.

Modulating to the Sub-dominant Key.

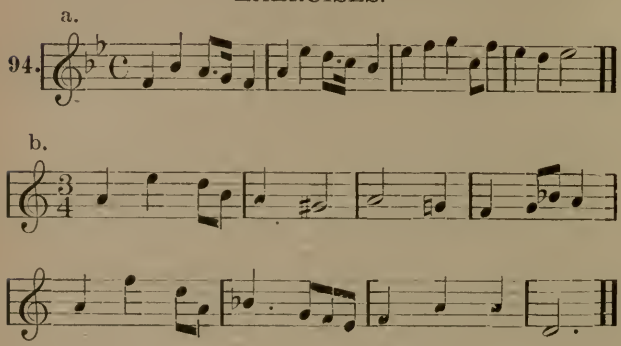
Here also the modulation is most frequently used in going from major to major or minor to minor keys. Fig. 93, *a* and *b*.

The modulation from a major key to the sub-dominant minor, is the only exception to the rule in Lesson XV. This is good because the tonic triad of the old key is the dominant triad of the new key, and only requires the addition of its minor seventh to make it the dominant seventh of the new key. Fig. 93 *c*.

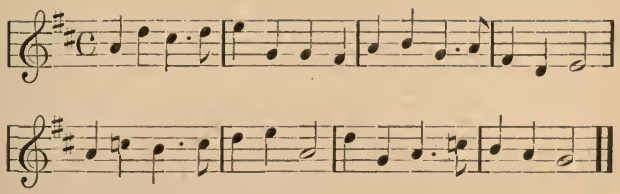


Write and play this modulation as directed in Lesson I.

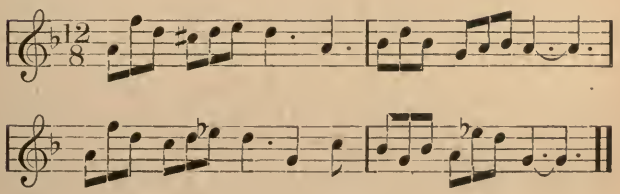
EXERCISES.



c.



d.



Lesson XXVII.

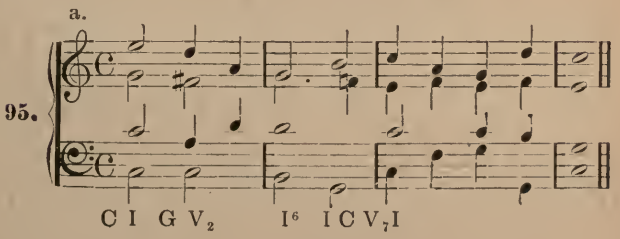
Combining the Modulations in Lessons I and II.

In this lesson a modulation is made to the dominant or sub-dominant key and back again to the original key. Fig. 95 *a*, *b*.

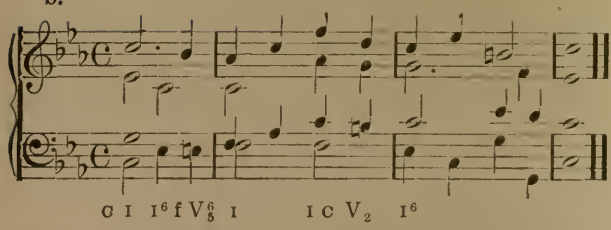
In combining modulations in exercises of the length given in this lesson, the modulation to the new key is seldom made permanent, but when the return to the original key is made the final cadence must be used.

a.

95.



b.

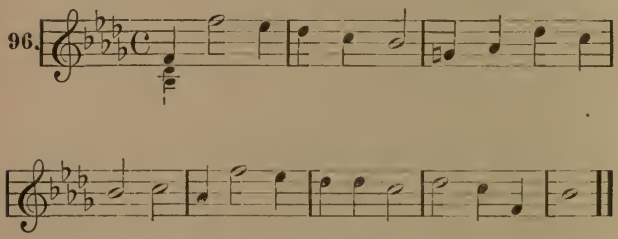


Write and play these modulations as directed in Lesson XXV.

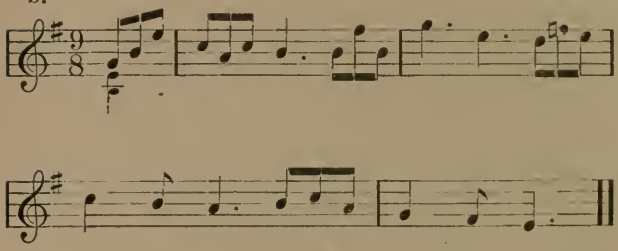
EXERCISES.

a.

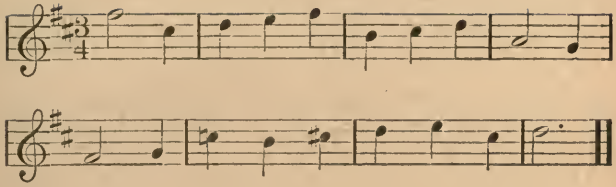
96.



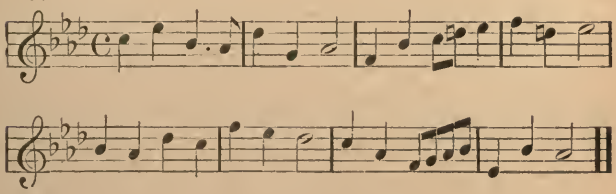
b.



c



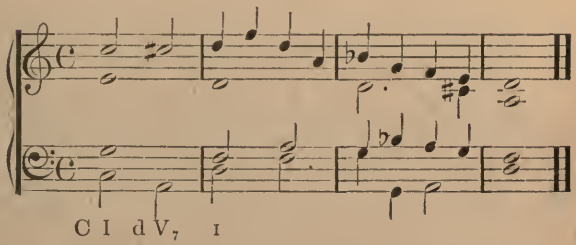
d.



Lesson XXVIII.

Modulating a Major Second Upward.

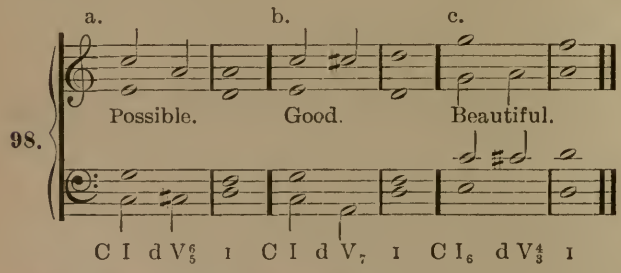
97.



In approaching the new dominant seventh in this modulation, it is necessary for one of the roots of the old tonic to skip down to the root, while the other moves up chromatically to the third of the new dominant seventh. Fig. 98 *a*, *b*. It is best not to make the skip in the soprano. To make it in the bass is preferable. Fig. 98 *b*. This is

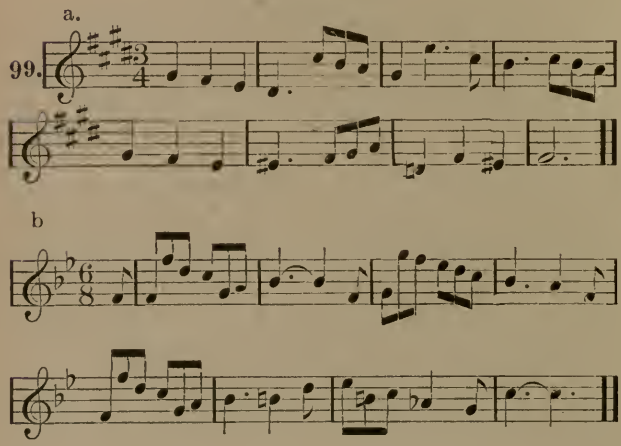
the only exception to the paragraph in Lesson XXV relative to cross relation.

The 5th of the old tonic triad may be doubled; the modulation is then made as in 98 *c*. This is probably the most beautiful way of approaching the new dominant seventh.

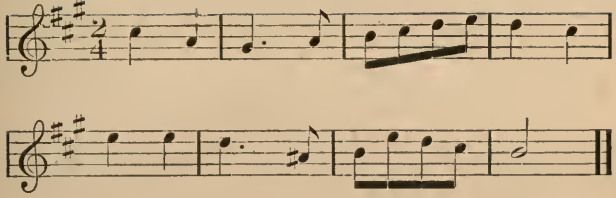


Write and play this modulation.

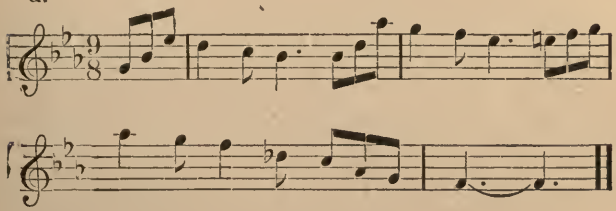
EXERCISES.



c.



d.

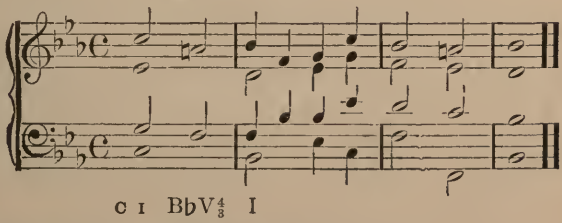


Lesson XXIX.

Modulating a Major Second Downward.

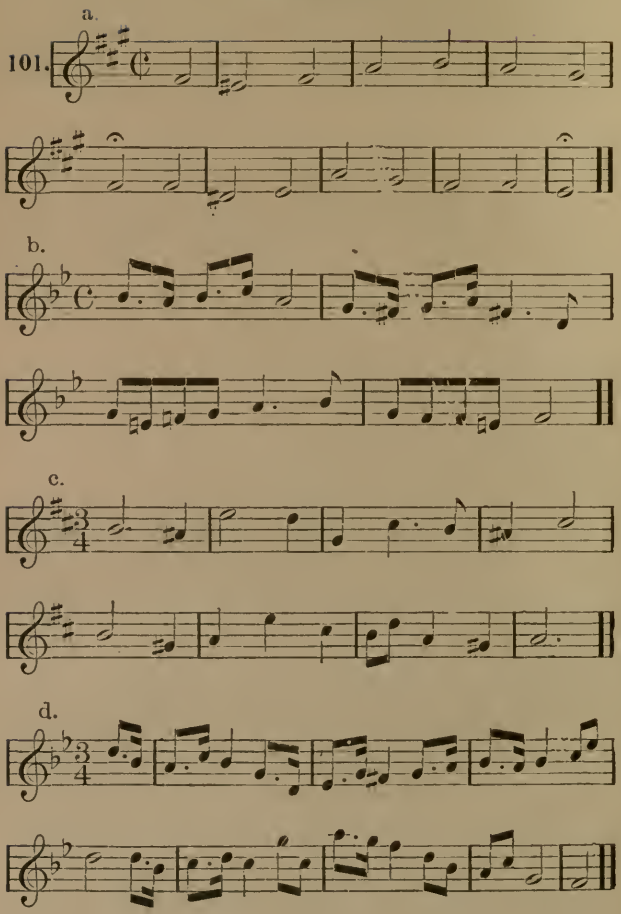
In this modulation it is only necessary to proceed as usual, by going to the nearest chord tones of the new dominant seventh. Fig. 100.

100.



Write and play this modulation.

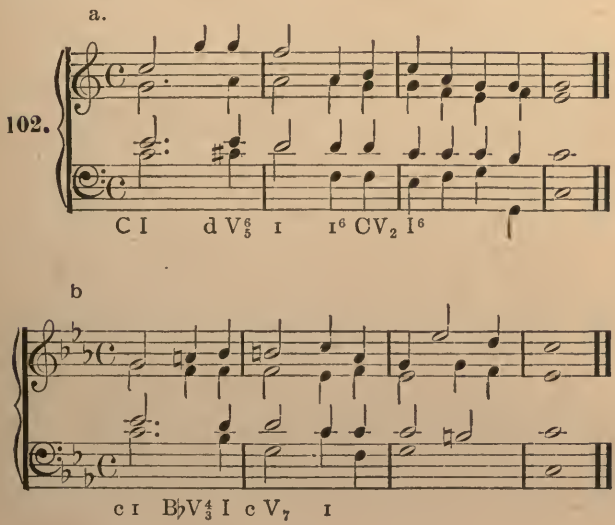
EXERCISES.



Lesson XXX.

Combining the Modulations in Lessons XXVIII and XXIX.

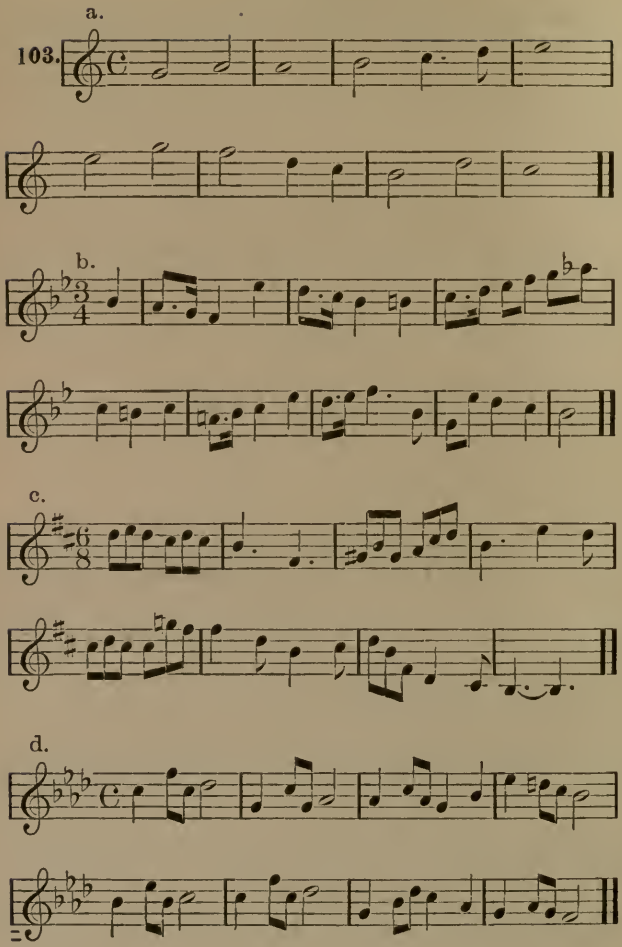
In this lesson a modulation is made to a key a major second higher or lower and back again to the original key. Fig. 102 *a*, *b*.



In this and succeeding combinations, to make the modulations both going and returning conform to the rule in Lesson XXV, they must be made only between major and minor, or minor and major keys.

Write and play these modulations.

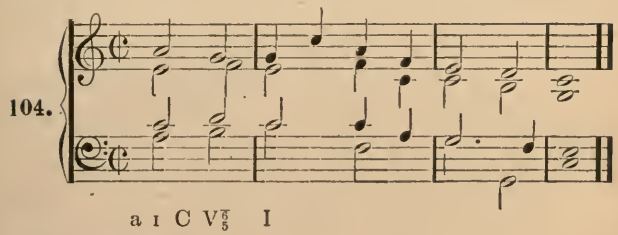
EXERCISES.



Lesson XXXI.

Modulating a Minor Third Upward. Fig. 104.

104.

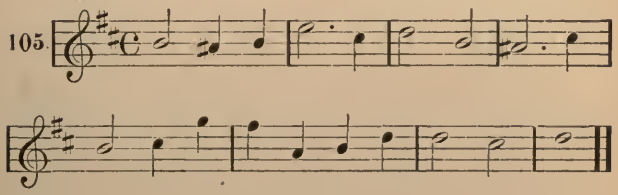


Write and play this modulation.

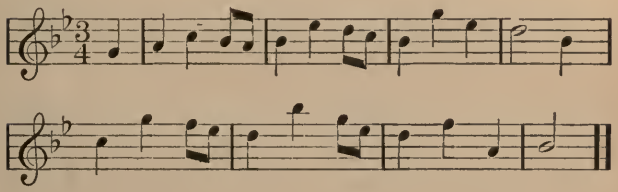
EXERCISES.

a

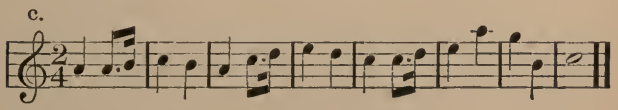
105.



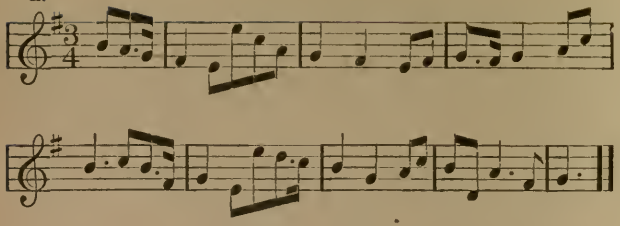
b.



c.



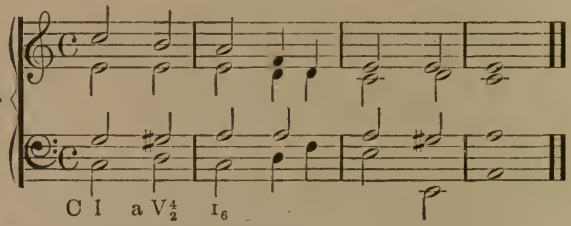
d.



Lesson XXXII.

Modulating a Minor Third Downward. Fig. 106.

106.

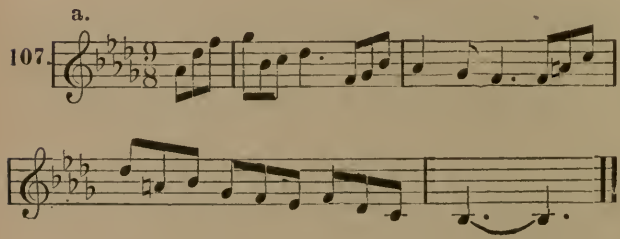


Write and play this modulation.

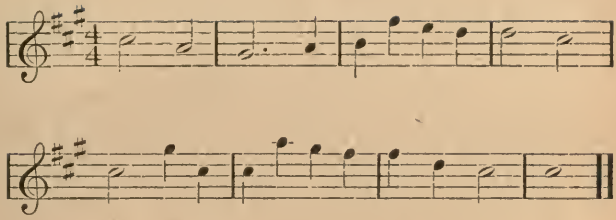
EXERCISES.

a.

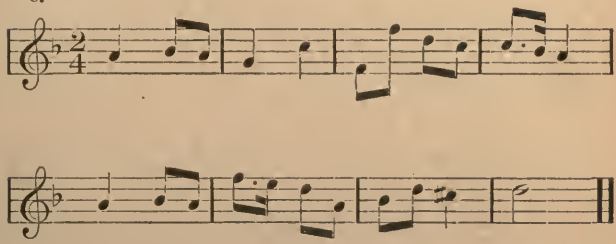
107.



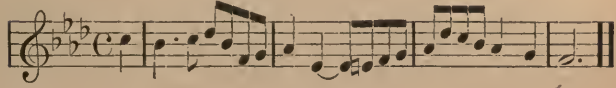
b.



c.



d.



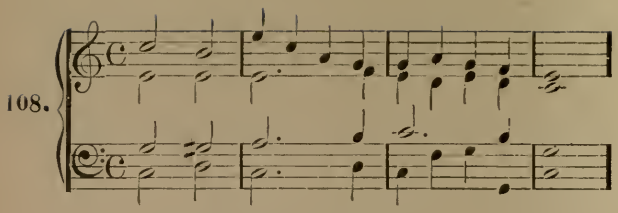
Lesson XXXIII.

COMBINE THE MODULATIONS IN LESSONS XXXI AND XXXII.

In this lesson a modulation is made to a key a minor third higher or lower and back again to the original key. Fig. 108 *a*, *b*.

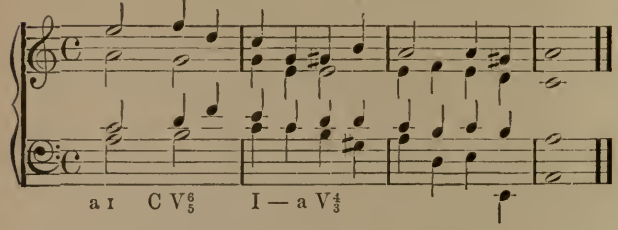
a.

108.



C V a V_2 I^6——C V^4_3 I

b.



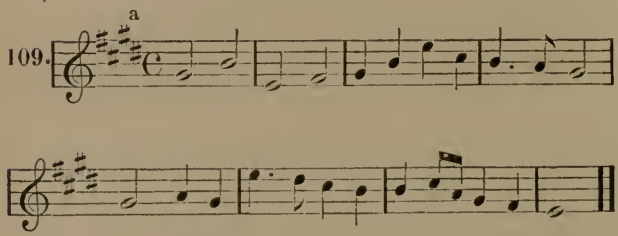
a I C V^6_5 I — a V^4_3

Write and play these modulations.

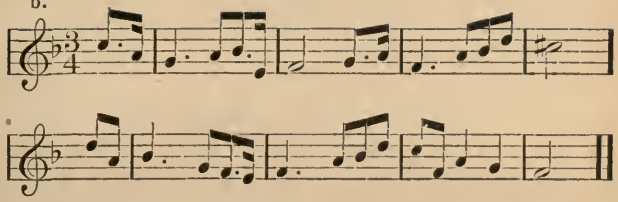
EXERCISES.

a

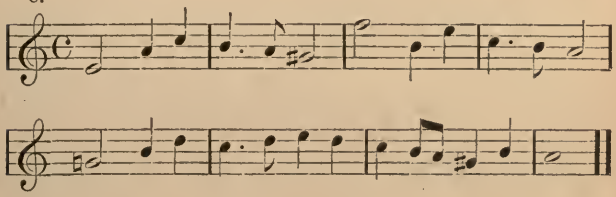
109.



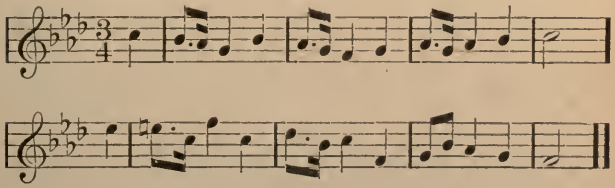
b.



c.



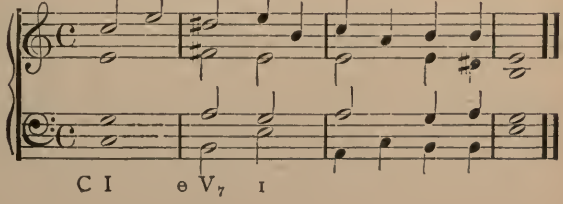
d.



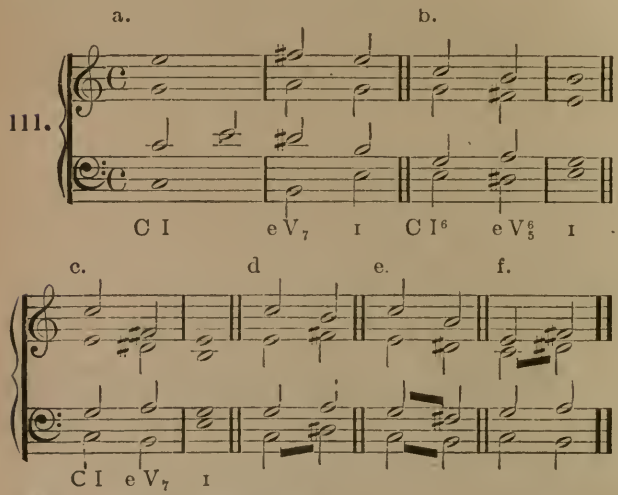
Lesson XXXIV.

MODULATING A MAJOR THIRD UPWARD. FIG. 110.

110.

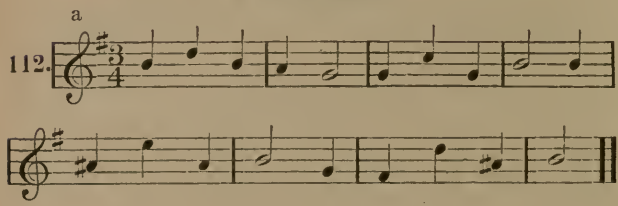


In modulating a major third upward it is best for the student to double the third of the old tonic triad before approaching the new dominant seventh, and use the root position in both chords as in Fig. 111 *a*. When this form of modulation is mastered, the student may use those at 111 *b*, and *c*. Faulty progressions as at 111 *d*, *e*, and *f*, create the necessity for special care in progressing to the dominant seventh, in this modulation.

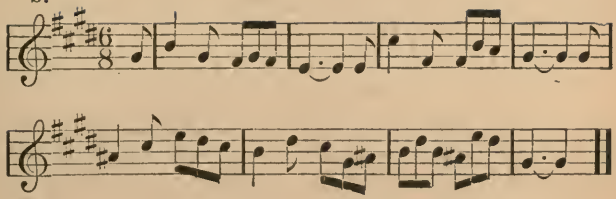


Write and play this modulation.

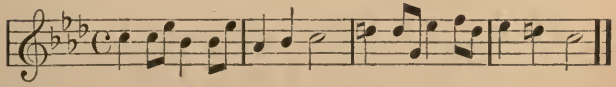
EXERCISES.



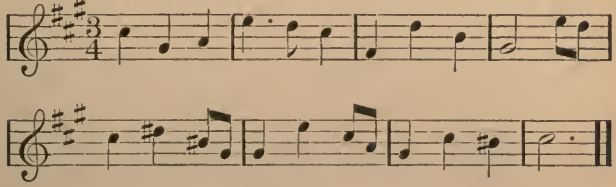
b.



c.



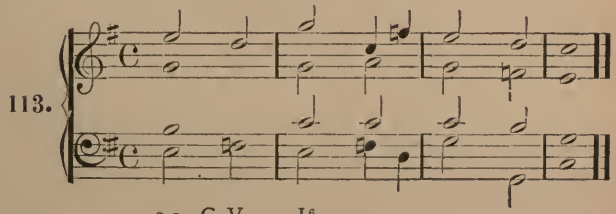
d.



Lesson XXXV.

MODULATING A MAJOR THIRD DOWNWARD FIG. 113.

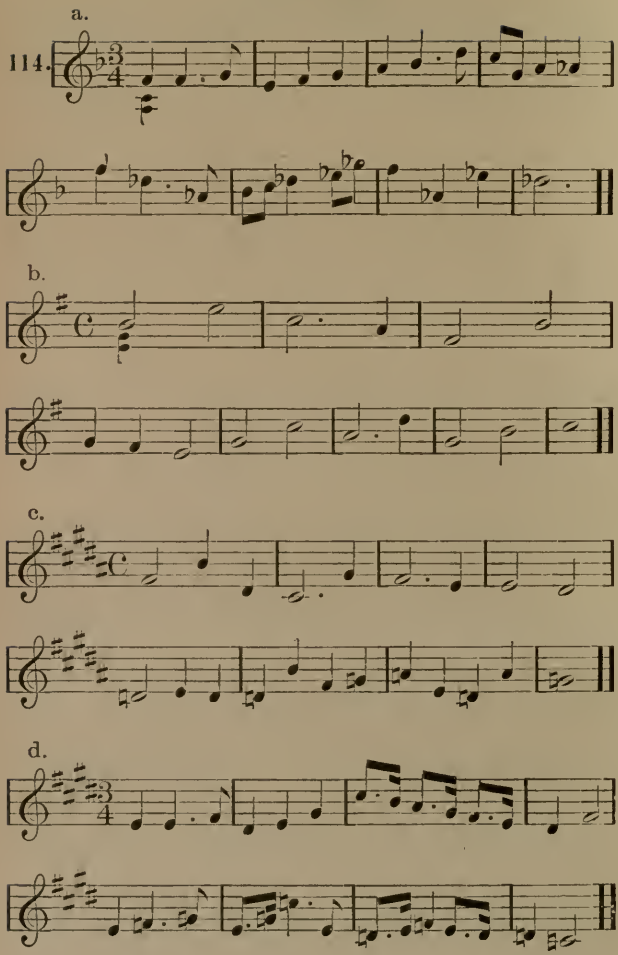
113.



e I C V_2 I^6

Write and play this Modulation.

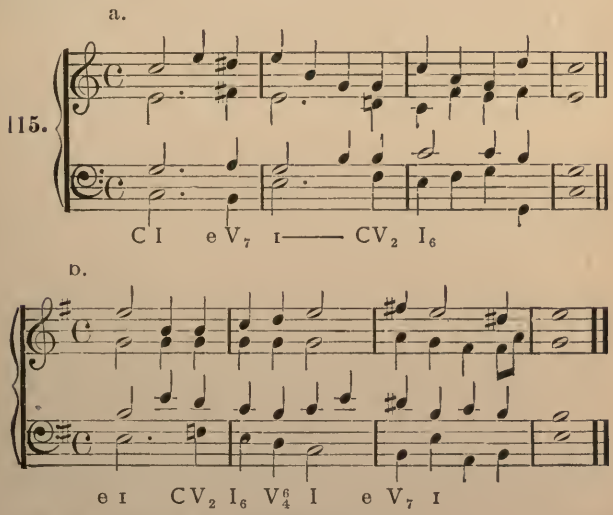
EXERCISES.



Lesson XXXVI.

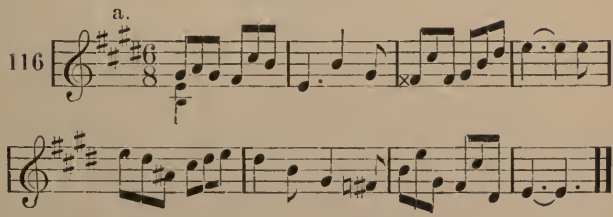
Combining the Modulations in Lessons XXXIV and XXXV.

In this lesson a modulation is made to a key a major third higher or lower and back again to the original key. Fig. 115.

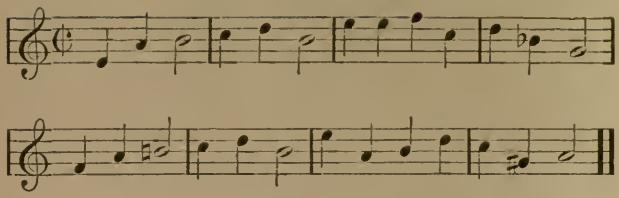


Write and play these modulations.

EXERCISES.



b.



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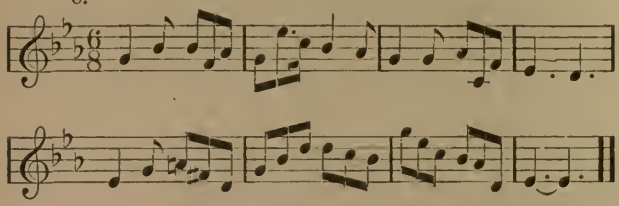

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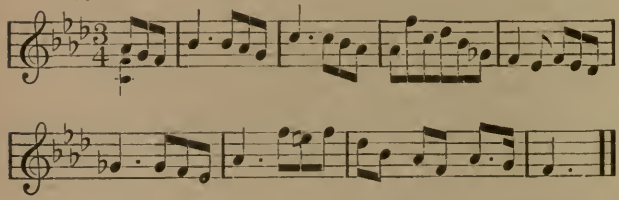


Lesson XXXVII.

Review.

Be prepared to play or write any of the modulations of the preceding lessons, as directed. It is desired that the student become thoroughly familiar with these modulations, so that in playing or writing them he manifests no hesitancy.

Instead of review, a test may be given on the preceding lessons.

DIVISION II. SECONDARY SEVENTH CHORDS.

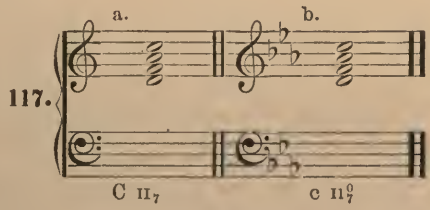
Lesson XXXVIII.

The Supertonic Seventh in Fundamental Position.

Probably the most interesting of the chords of the seventh is that of the supertonic.

As will be seen in later lessons it allows of many chromatic changes of its different members, while still retaining its identity as the supertonic seventh of the key.

It comprises, in major, a minor triad and minor seventh, (Fig. 117 *a*); and in minor, a diminished triad and minor seventh. Fig. 117 *b*.

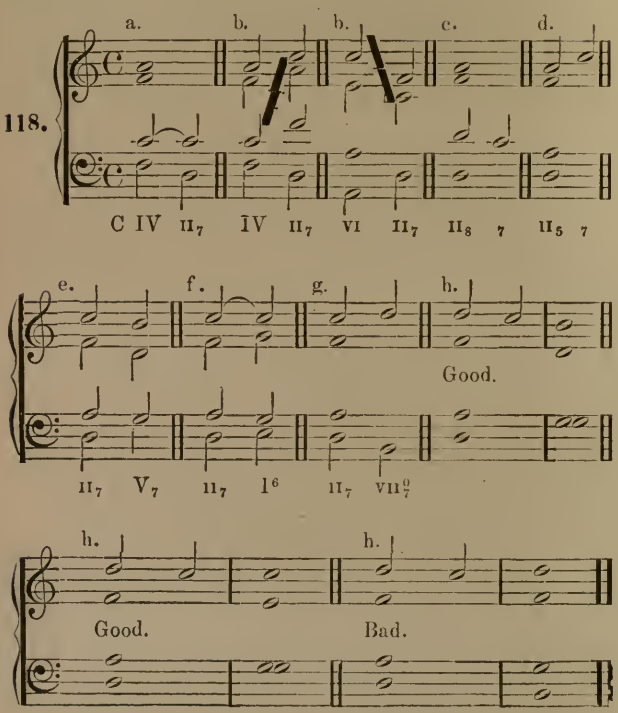


In its introduction, the seventh of the supertonic seventh chord must be prepared either directly (*a*), or by substitution (b); or may be used as passing seventh (*c*); or may be approached in an upward direction from some other tone of the same chord (*d*) Fig. 118. A tone to be prepared must be in the same voice in the previous chord. Fig. 118 *a*. To be prepared by substitution it needs only to be a part of the previous chord, not necessarily in the same voice. Fig. 118 *b*.

In resolving, the seventh may descend a degree (*e*); or remain stationary (*f*); or may ascend a degree if the bass takes the note of resolution, or its octave (*g*). Fig. 118.

The passing seventh cannot resolve by ascending. Fig. 118 (*h*).

118.

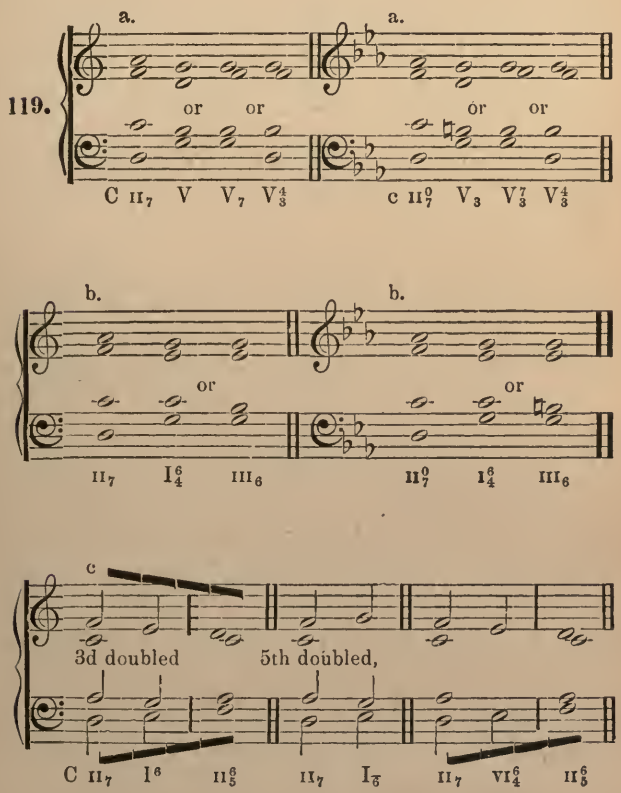


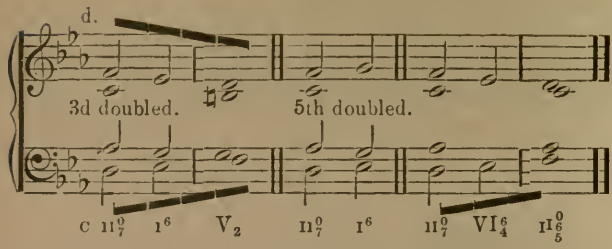
While these chords may resolve to any chord that permits a proper treatment of the seventh, the following resolutions, however, are preferred, in the order given; to chords a fourth higher, a third lower, a second higher, and a fifth higher.

The most common resolutions of the supertonic seventh are to V, V_7, V^4_3, I^6_4, III_6, I^6, and VI^6_4.

Of these the resolutions to V, V_7, and I_4^6 are the most frequently used.

The above resolutions may be divided into three groups: First, V, V_7, and V_3^4 (a); second, I_4^6 and III^6 (b); third, I^6 and VI_4^6 (c). Fig. 119.





In the resolutions of the first group, those to V and V_7 are identical with the resolutions of the dominant seventh to its tonic, except that in resolving to V_7 the third of the supertonic seventh remains stationary, becoming the seventh of V_7 (119 *a*), and in the resolution to V^4_3 the root and third of the supertonic seventh are stationary, the other voices progressing as usual. 119 *a*.

In the resolution to the dominant triad, when the third of the supertonic seventh is in the soprano, it is well to have this third skip down a third to the fifth of the dominant chord. This is done to avoid a bad covered octave, and also to make the dominant triad complete in all its parts.

In all resolutions of the supertonic seventh, it is always better for the root to skip up a fourth instead of down a fifth. When resolving to I^6_4 or III^6 this is necessary.

In the resolution of the second group—to I^6_4 and III^6—the root skips up a fourth while the upper voices move in contrary motion to the bass to the nearest chord tones, or remain stationary.

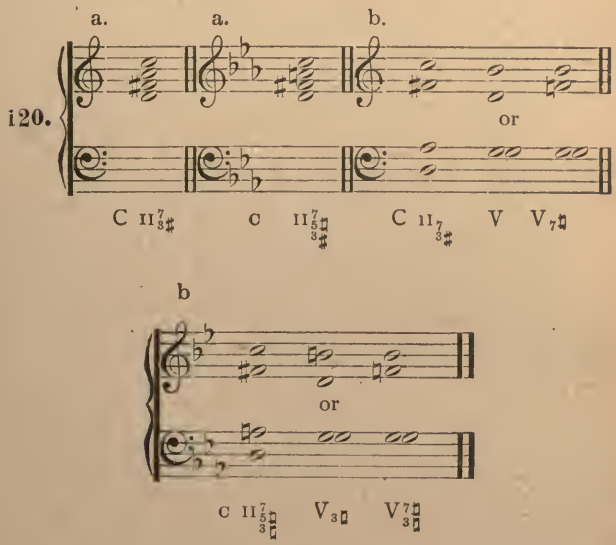
The III$_6$ chord can, in all cases, be used interchangeably with the I^6_4 chord.

In resolving the third group, the seventh remains stationary, the other voices go to nearest chord tones. In the resolution to I^6, either the third or the fifth may be doubled. If the third is doubled, both thirds must be

treated as passing tones (See Part II, page 11). In the resolution to VI^6_4, the bass note of VI^6_4 must also be approached and left degreewise in the same direction.

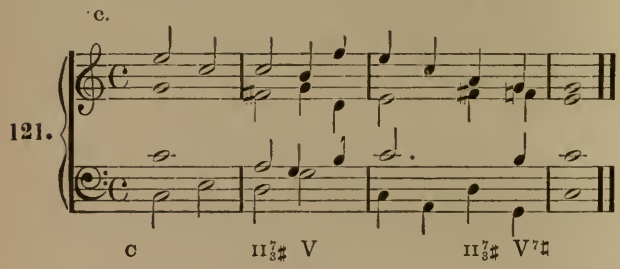
The treatment of these chords being the same in minor, nothing will be said of their treatment, since the illustrations are deemed sufficient.

The supertonic seventh is often used with raised third (in minor with raised third and fifth) 120 *a*, in which case it resolves to V or V_7. In the resolution to V it is the same as that of the regular supertonic seventh. The resolution to V_7 is also the same, except that the raised third moves down a half step to the seventh of the dominant seventh chord. 120 *b*.



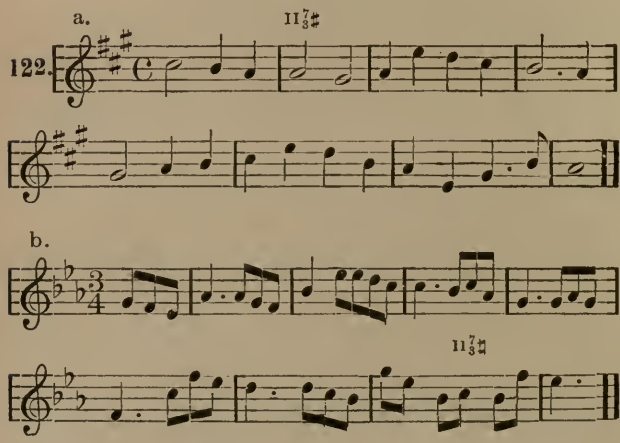
While this chord may be used in both major and minor, it is better to confine its use to the major.

Fig. 121 contains the resolution of the supertonic seventh with raised third.



This and the following lessons will each contain a fragment of a Bach choral to be harmonized. It is presup posed that the student has some knowledge in harmonizing figured basses containing secondary seventh chords, and for this reason the selection of these fragments includes those that contain such chords.

EXERCISES.



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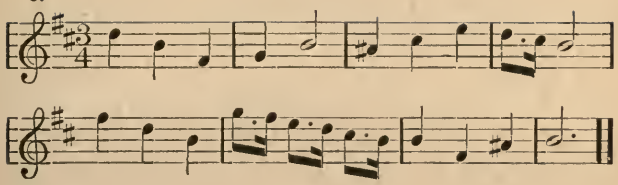

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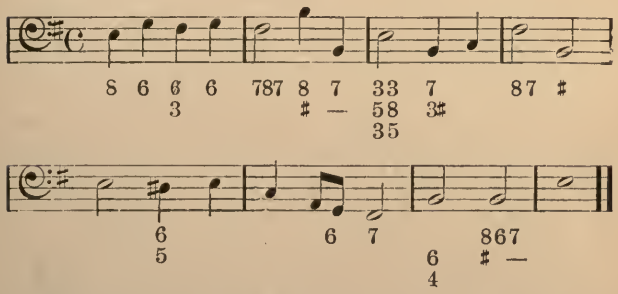

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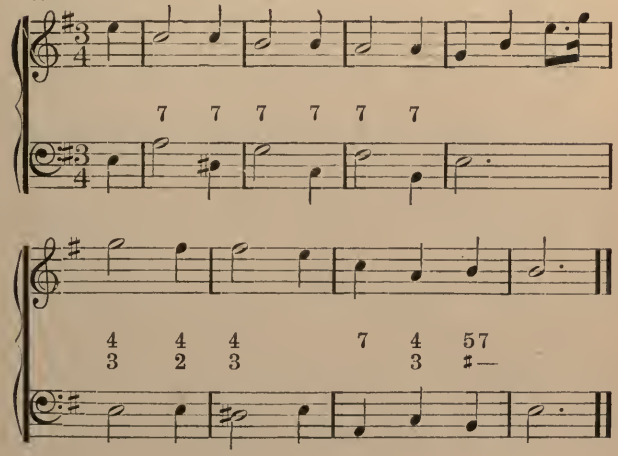
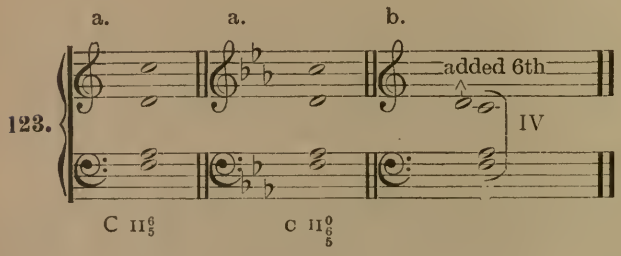


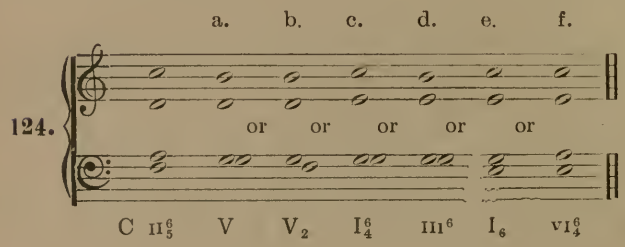
Lesson XXXIX.

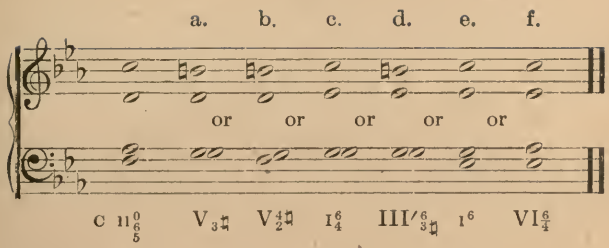
Inversions of the Supertonic Seventh Chord.

Of the inversions of the Supertonic seventh, the first is the most useful and interesting. Fig. 123 *a*. In this form it is called, by some authorities, "Chord of the added sixth," also "Chord of the Sub-dominant sixth," it being the sub-dominant chord with the sixth above the root added. Fig. 123 *b*.



The resolutions of this inversion are to V, V_2, I^{6}_{4}, III^{6}, I^{6} and VI$^{6}_{4}$. Fig. 124.



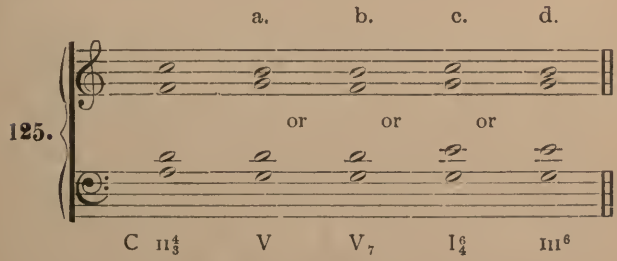


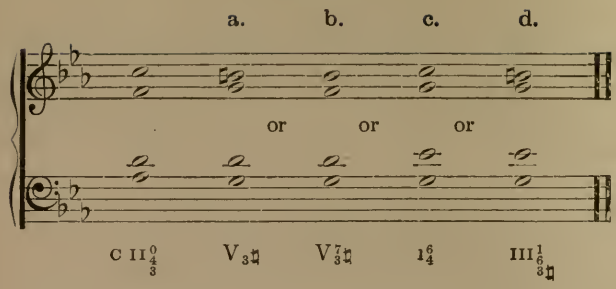
The resolution to V is the same as that of the dominant six-five chord to its tonic triad. Fig. 124 *a* The resolution to V_2 is also the same, except that the third (bass note) remains stationary, becoming the seventh of V_2. Fig. 124 *b*

In the resolution to I^6_4 or III^6 the bass moves upward a whole step while the other voices move in contrary motion to the bass to the nearest chord tones, or remain stationary. Fig. 124 *c* and *d*.

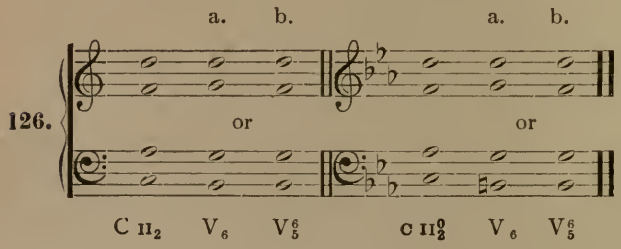
In the resolution to I^6 and VI^6_4 the leading of the voices is the same as when resolving the supertonic seventh chord to I^6 or VI^6_4. Fig. 124 *e* and *f*.

The II^4_3 chord resolves to V, V_7, I^6_4 or III^6. The leading of the voices is the same as in the resolution of the Supertonic six five chord to the above chords. Fig. 125.





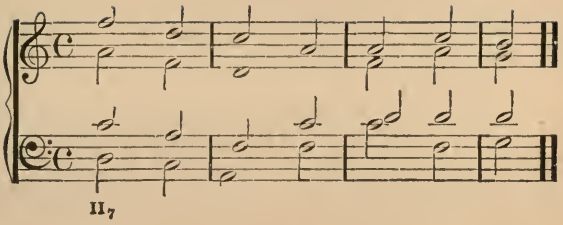
The II$^{4}_{2}$ chord resolves only to V$_{6}$ or V$^{6}_{5}$, in which resolutions the voices are also led the same as when resolving the Supertonic six five chord to V, or V$_{7}$. Fig. 126.



The inversions of the Supertonic seventh chord may also be used with raised third. Their resolutions are the same as those of the inversions of the regular Supertonic seventh chord, except that the resolutions to I^{6} and VI$^{6}_{4}$ are excluded. Figs. 125, 126.

Like the dominant seventh, so this chord may move freely to its different positions or inversions. Fig. 127.

127.



EXERCISES.

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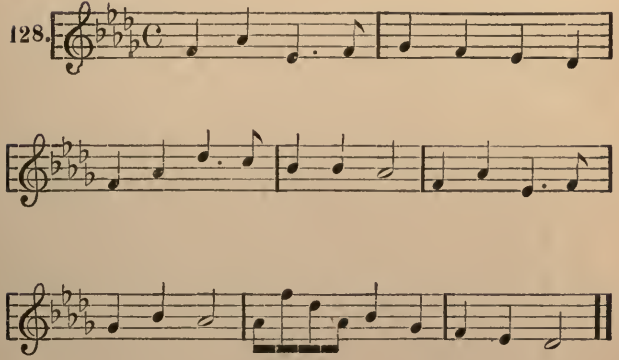

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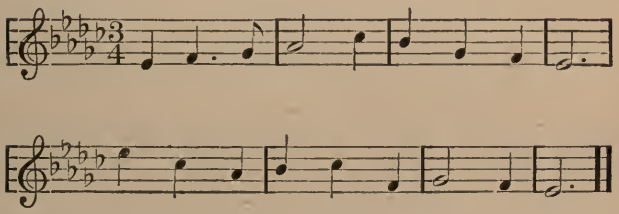

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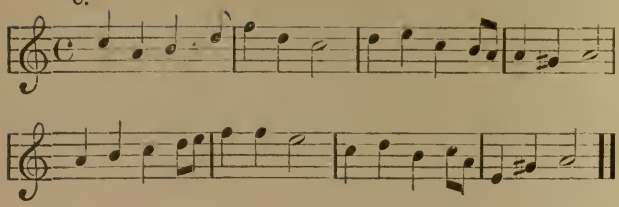

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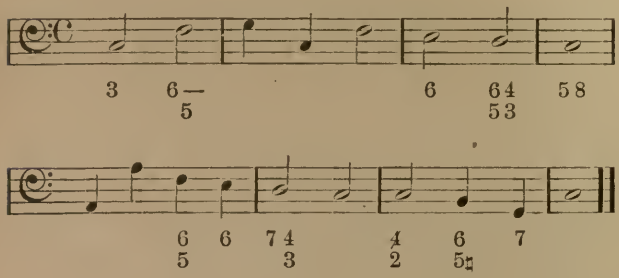

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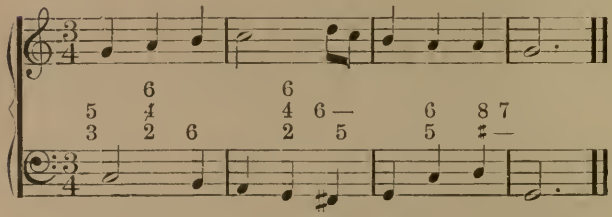


Lesson XL.

Secondary Seventh Chords in Major.

Fundamental position.

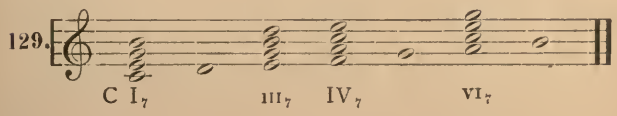
The remaining chords of the seventh are I_7, III_7, IV_7, and VI_7. Fig. 129.

The tonic seventh comprises a major triad and a major seventh

The mediant seventh comprises a minor triad and a minor seventh.

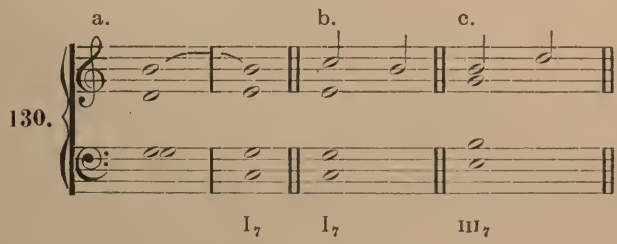
The sub-dominant comprises a major triad and a major seventh.

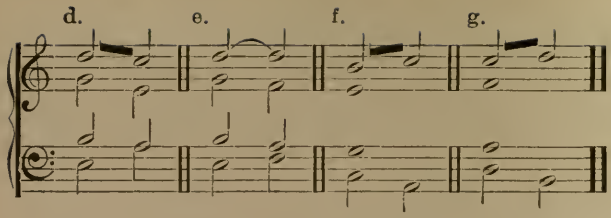
The sub-mediant comprises a minor triad and a minor seventh.



The introduction of the seventh of these chords requires special treatment. It may be introduced: 1st, by preparation, *i. e.* it must be in the same voice in the previous chord; 2nd, as passing seventh; 3rd, or when it is a minor seventh it may be approached by skip in an upward direction from some other tone of the same chord. Fig. 130, *a*, *b*, *c*.

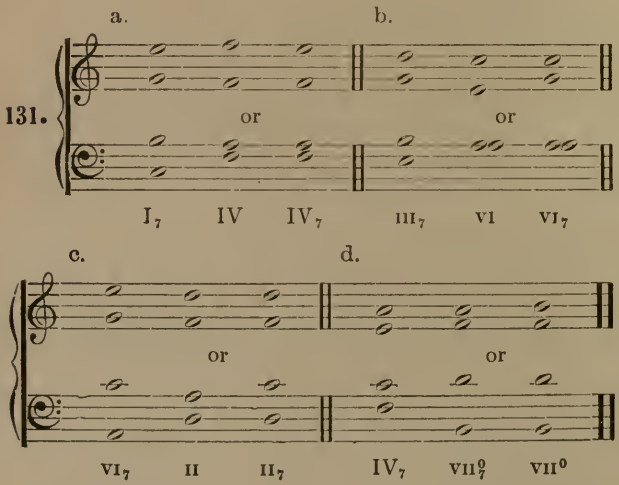
In resolving it may: 1st, descend one degree; 2nd, remain stationary; 3rd, may ascend a degree, when it is a major seventh, or the bass goes to the note of resolution or its octave. Fig. 130, *d*, *e*, *f*, *g*.



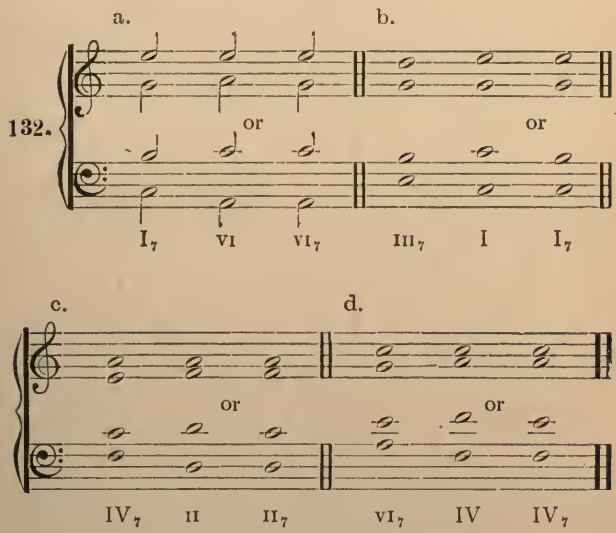


The chord of resolution may be a triad or a chord of the seventh. In this lesson these chords of the seventh may be used in the root position only.

The resolution to a chord a fourth higher or fifth lower—commonly called the natural or cadencing resolution—is the most frequent. All chords of the seventh may take this resolution except IV_7 and VII^7_0 and these may do so when used in a sequence. Fig. 131, *a*, *b*, *c*. The IV_7, even when not in sequence, may take this resolution when the seventh ascends as in Fig 131 *d*,



The next most frequent resolution is to a chord a third lower. In this resolution the seventh in all cases moves upward one degree the other voices proceeding to the nearest chord tones. Fig. 132 *a, b, c, d.*



To the above resolutions may be added the resolutions to chords a second higher and a fifth higher. Resolutions to other chords are better avoided for the present.

In the cadencing resolution of successive chords of the seventh, in fundamental position, the fifth is omitted in alternate chords. Fig. 133.

A sequence of successive chords of the seventh may be written as in Fig. 133.

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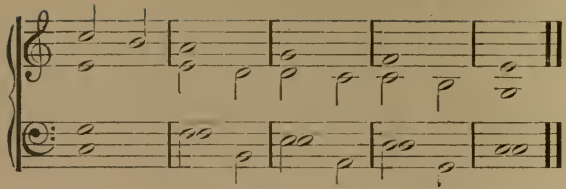

I_8 $_7$ IV_7 VII^0_7 III_7 VI_7 II_7 V_7 I

EXERCISES.

a.

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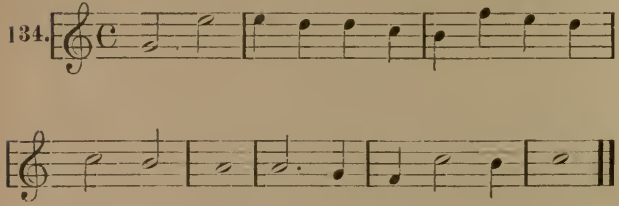

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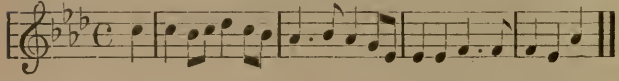

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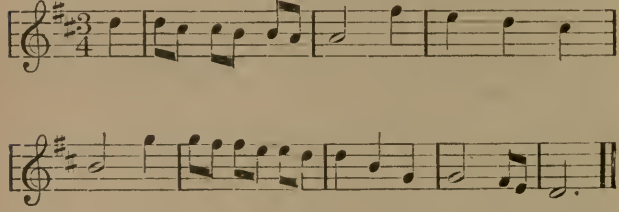

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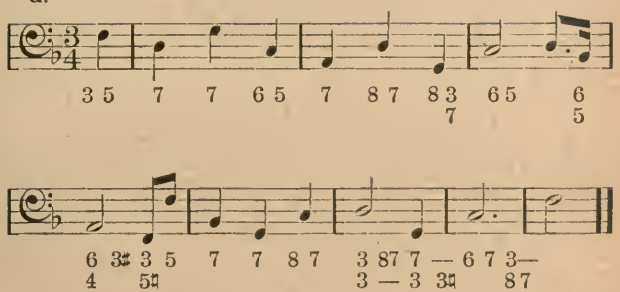

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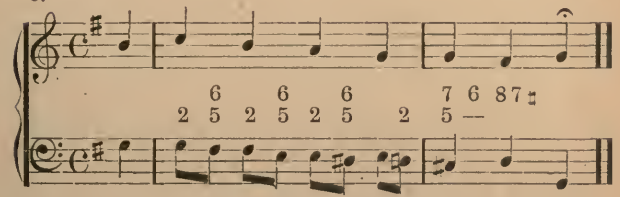

Lesson XLI.

Secondary Seventh Chords in Major.

Fundamental position (con.)

EXERCISES.

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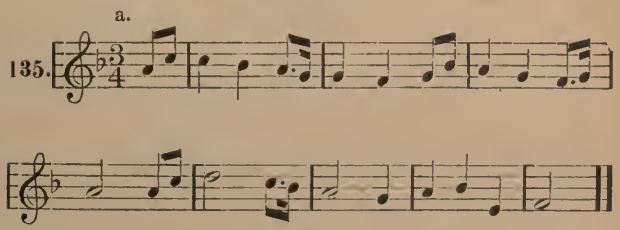

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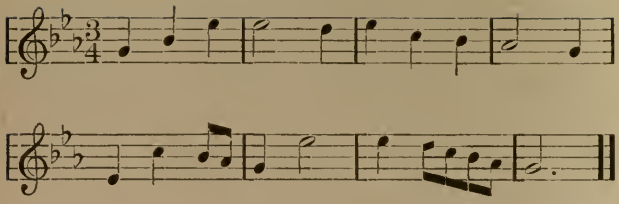

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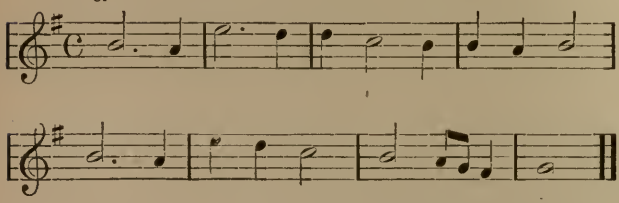

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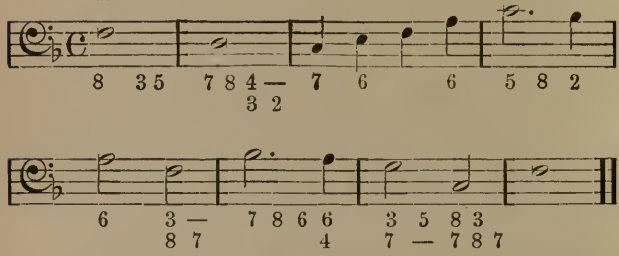

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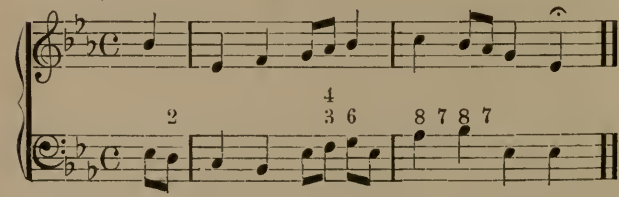


Lesson XLII.

Secondary Seventh Chords in Minor.

Fundamental position.

The remaining chords of the seventh in minor are: I_7, III'_7, IV_7, and VI_7. Fig. 136.

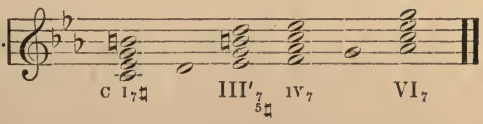
The tonic seventh consists of a minor triad and major seventh.

The mediant seventh consists of an augmented triad and major seventh.

The sub-dominant consists of a minor triad and minor seventh.

The sub-mediant consists of a major triad and major seventh.

136.

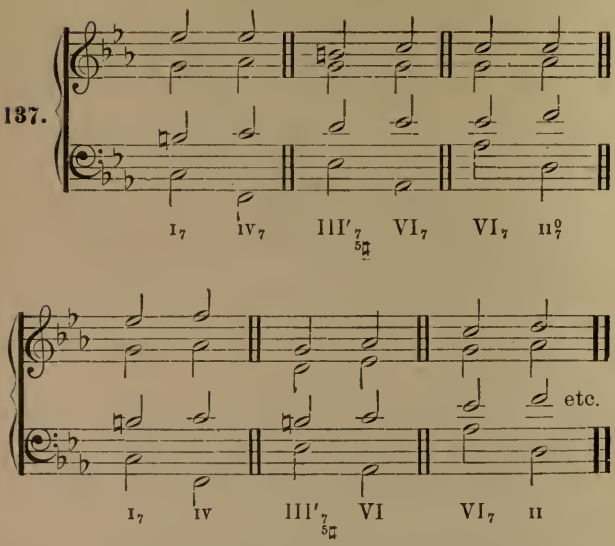


The resolution of these chords ought to present no difficulties. Like the secondary seventh chords in major, so these may resolve to any chord that permits of a proper treatment of the seventh. Owing to the augmented step between the sixth and seventh degrees of the key, care will have to be exercised in leading the voices to the nearest chord tones. Here also the cadencing resolution, and the resolution to a chord a third lower are the most frequently used.

The sub-dominant seventh cannot take the cadencing resolution, and in resolving the others so, it is necessary with some to resolve the seventh upward.

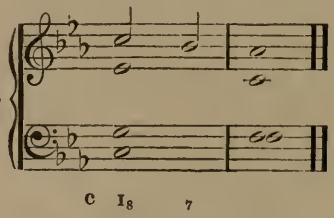
All that is necessary in resolving these chords cadentially is to have the bass move up a fourth or down a fifth, treat the seventh as directed, and go to the nearest chord tones with the other voices. Fig. 137.

137.



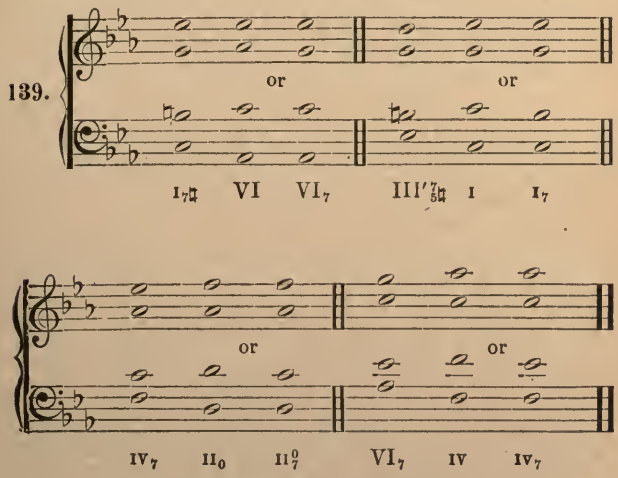
When the seventh of the tonic seventh is used as passing seventh, it is notated as in the original minor scale, and must then descend in resolving. Fig. 138.

138.



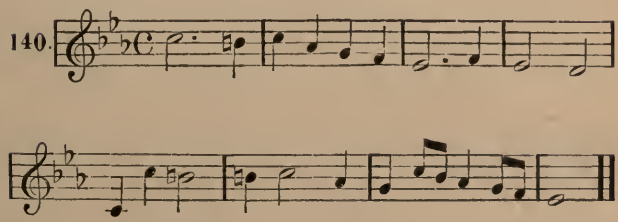
Sequences of cadencing chords of the seventh in minor are impossible.

In the resolution to chords a third lower, the seventh in all cases ascends in resolving, the other voices proceeding to nearest chord tones. This is probably the most satisfactory resolution of these chords in minor. Fig. 139.



EXERCISES.

a.



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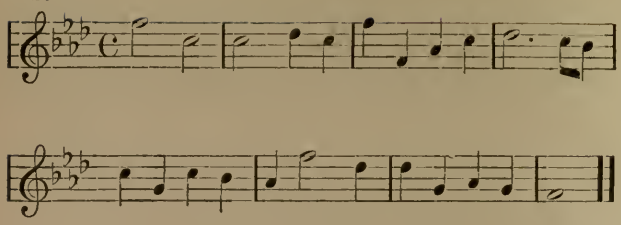

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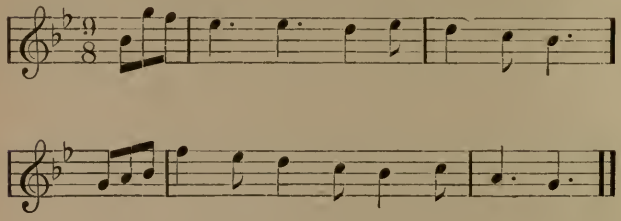

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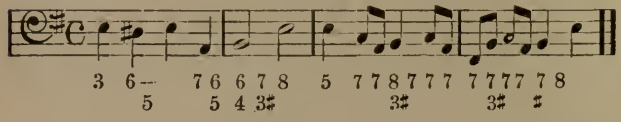

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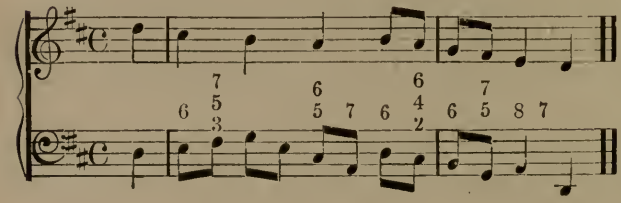
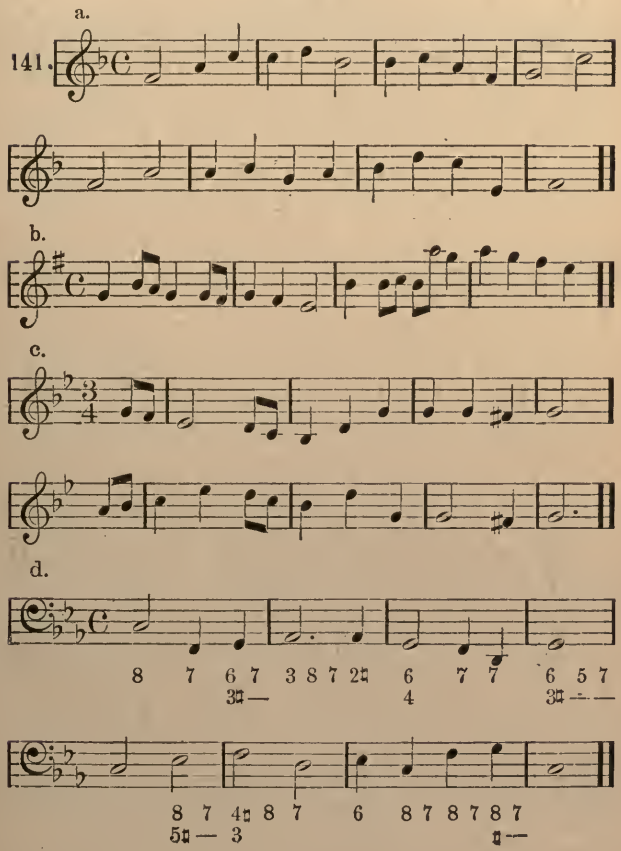


Lesson XLIII.

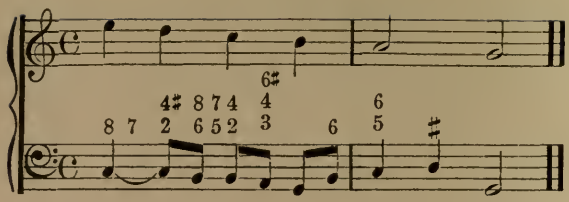
Secondary Seventh Chords in Major and Minor.

Fundamental position. (con).

EXERCISES.



e.



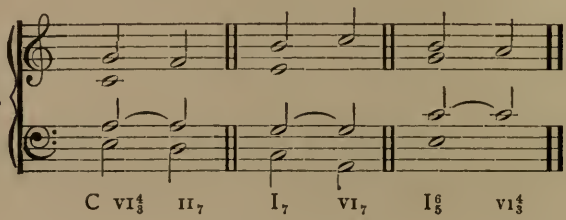
Lesson XLIV.

INVERSIONS OF THE SECONDARY SEVENTH CHORDS IN MAJOR.

When inverted, the secondary seventh chord must *always* be complete.

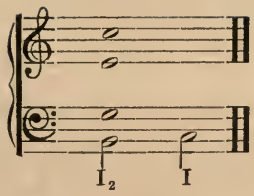
In their introduction and resolution the leading of the voices is the same as when in fundamental position, except in the cadencing resolution, and in going to a chord a third lower, in these cases the root remains stationary, instead of skipping. Fig. 142.

142.



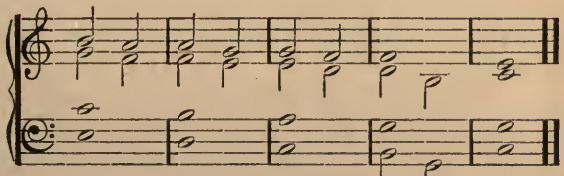
In the upward resolution of the seventh when it is below the root, it must be at least a ninth distant from it. Fig 143.

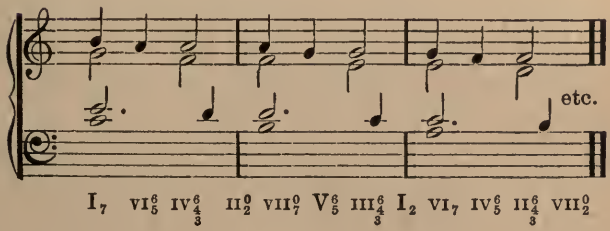
143.



The most frequent resolutions are the cadencing resolution, and the resolution to a chord a third lower, and both of these may be used in sequences, but in major keys only. Fig. 144.

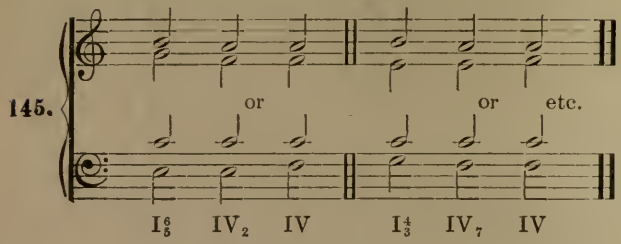
144.



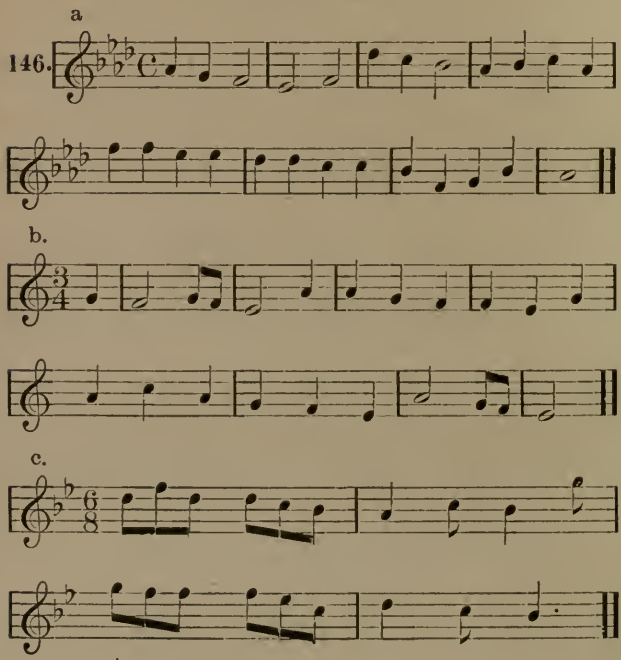


When it is desired to resolve an inversion of a chord of the seventh to a chord other than those given above, it is only necessary to follow the directions for this in Lesson XXXVIII.

The chord of resolution may now be any chord. Fig. 145



EXERCISES.



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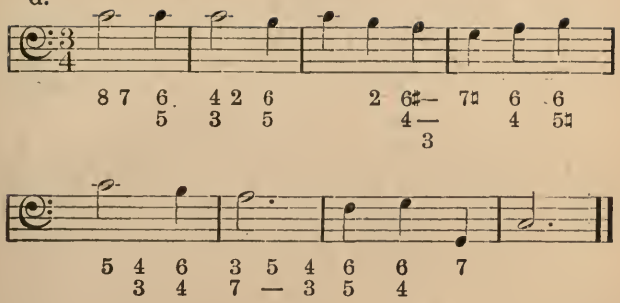

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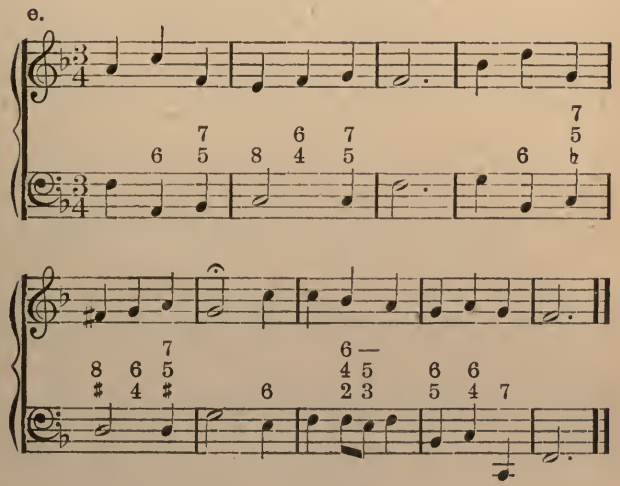


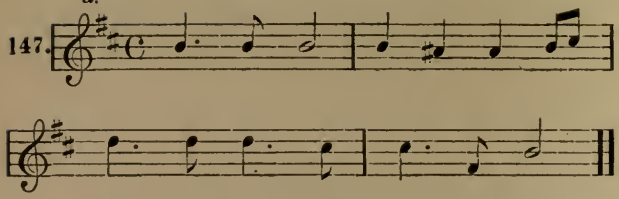
Lesson XLV.

Inversions of the Secondary Seventh Chords in Minor.

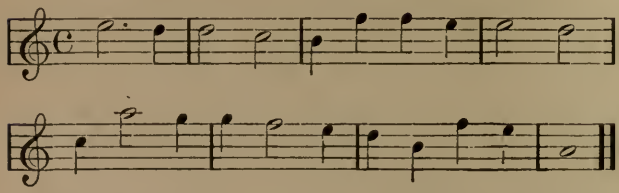
The treatment of these chords in minor requires no additional directions to what has already been said in major.

EXERCISES.

147. a.



b.



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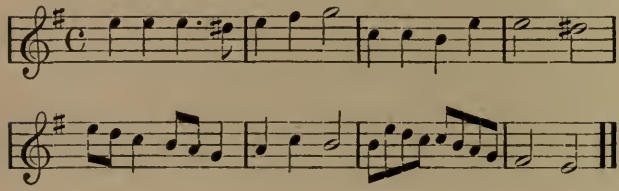

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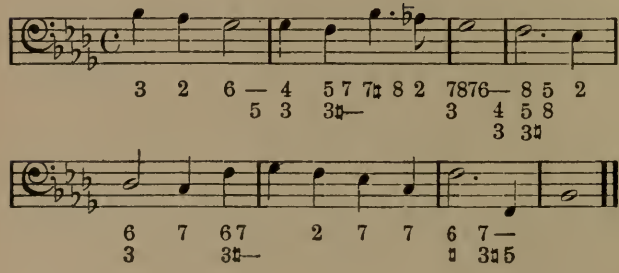

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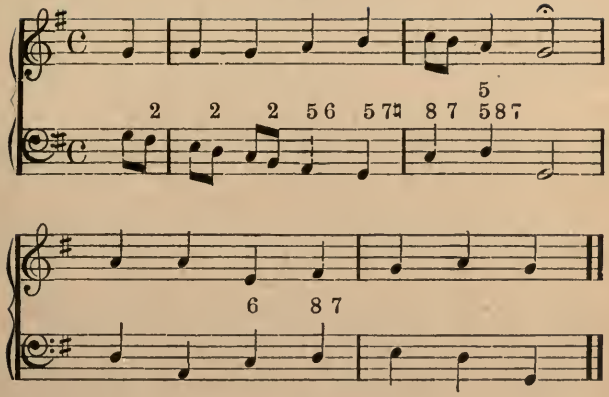


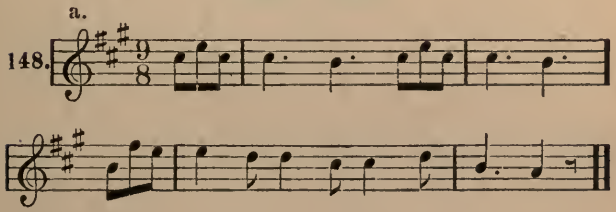
Lesson XLVI.

Inversions of the Secondary Seventh Chords in Major and Minor.

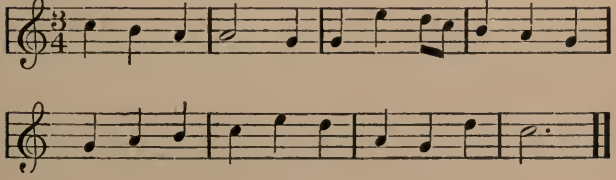
EXERCISES.

a.

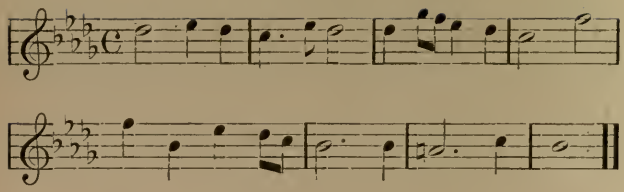
148.



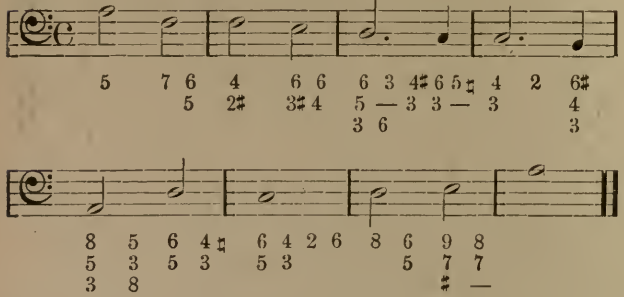
b.



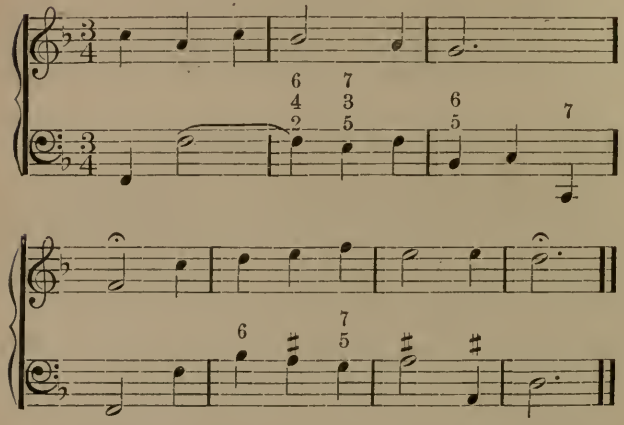
c.



d.


5 7 6 4 6 6 6 3 4♯ 6 5♮ 4 2 6♯
5 2♯ 3♯ 4 5 — 3 3 — 3 4
3 6 3
8 5 6 4♮ 6 4 2 6 8 6 9 8
5 3 5 3 5 3 5 7 7
3 8 ♯ —

e.


6 7
4 3
2 5
6
5
7
6 7
♯ 5
♯ ♯

Part IV.

DIVISION I. ALTERED CHORDS.

Lesson XLVII.

Chords of the Augmented Sixth.

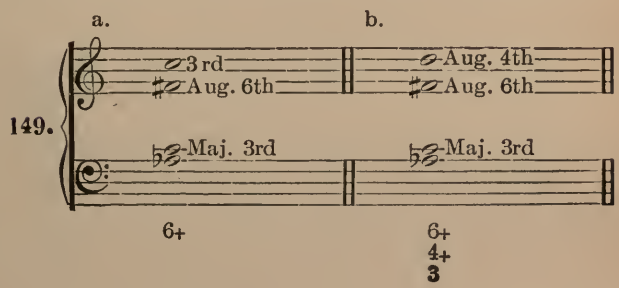
In addition to the chords already presented, there are others much used and of considerable importance. These are:

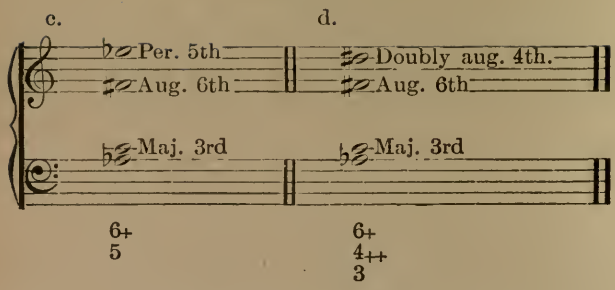
1. Chord of the augmented sixth with major third, figured $6+$.

2. Chord of the augmented sixth with augmented fourth and major third, figured $\begin{smallmatrix}6+\\4+\\3\end{smallmatrix}$

3. Chord of the augmented sixth with perfect fifth, and major third, figured $\begin{smallmatrix}6+\\5\end{smallmatrix}$.

4. Chord of the augmented sixth with doubly augmented fourth and major third, figured $\begin{smallmatrix}6+\\4+\\3\end{smallmatrix}$. Fig. 149 *a*, *b*, *c*, *d*.

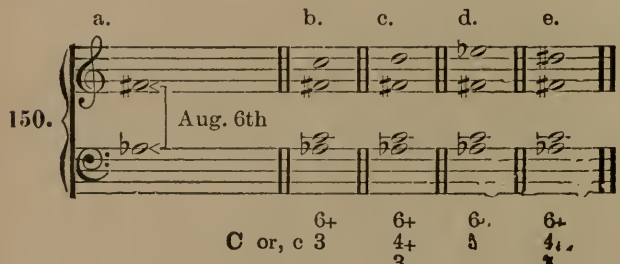




The *chief characteristic* of these chords is the *augmented sixth* from the *bass note.* Fig. 150 *a.* They occupy as definite a position in the key as the dominant seventh chord, and have resolutions quite as regular· but while the dominant seventh is constantly used in all its inversions these chords are nearly always found in that inversion which gives them their name. Fig. 150, *b*, *c*, *d*, *e*.

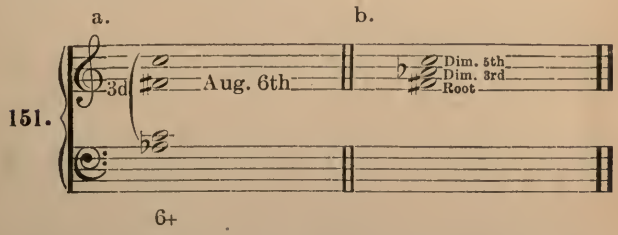
In speaking of the Chord of the augmented sixth *of a key* we shall have reference to that chord with its *bass note a major third below the key note.* Fig. 150.

In the treatment of these chords, this, their characteristic position in the key and their resolutions will first be taken up, after which the deviations from this position and their resolutions will be treated.



Chord of the Augmented Sixth with Major Third.

As the "thorough bass" notation indicates, this is a chord that has as its sixth above the bass note, an augmented sixth. This chord has only three tones; it is therefore necessary in four part writing, to double one of these. The *third* above the *bass note*, is doubled. Fig. 151 *a*. Reading from the *bass note*, it comprises a major third (which is doubled) and an augmented sixth. Fig. 151 *a*. Reading from the root it comprises a diminished third and diminished fifth. Fig. 151 *b*.

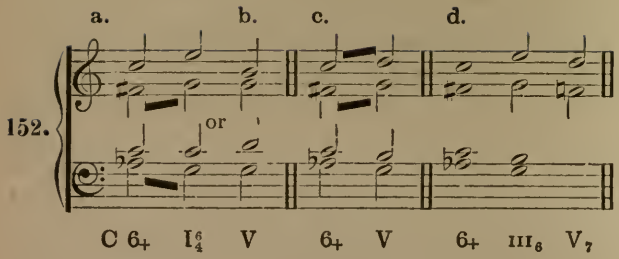


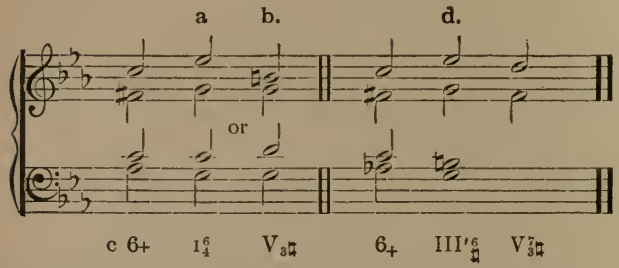
This chord is found in both major and minor keys and its *bass note* is a major third below the key note. It resolves to I_4^6 or V. Fig. 152 *a*, *b*.

In resolving, the augmented sixth moves outwardly a diatonic half step, and the other voices proceed to the nearest chord tones of I_4^6 or V. Fig. 152 *a*, *b*.

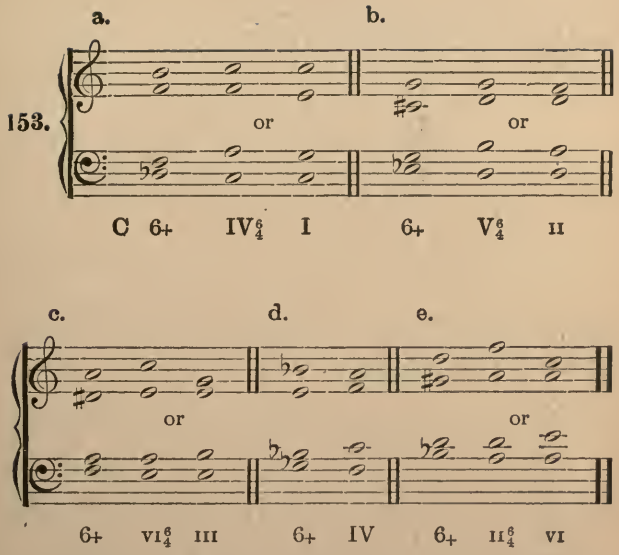
The resolution of this as well as the *other chords of the augmented sixth* to a III^6 chord is good when the III^6 chord is substituted for the cadencing tonic six-four chord as in Fig. 152 *d*.

While the fifths in Fig. 152 *c* are not objectionable it is nevertheless better, where a choice is possible, to use Fig. 152 *b*.





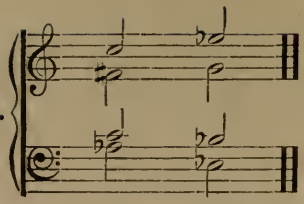
This as well as the other chords of the augmented sixth are often found with the *bass note* on degrees other than a major third below below the key note. In such cases the resolutions are identical with those above mentioned, only the chords to which they resolve are not I^6_4 or V, but simply a six-four chord (major or minor), or a triad in fundamental position. Fig. 153. It must be remembered that when the triad to which the augmented sixth resolves, is not V, it may be either major or minor. When a choice is possible, resolve it to a major triad.



It will be seen that all of the above chords of the augmented sixth are on degrees other than a major third below the key note; as a consequence they resolve, not to I$_4^6$ or V, but simply to a six-four chord (major or minor), or a triad (major or minor) in fundamental position.

One other resolution, when the bass note is found on degrees other than a major third below the key note, calls for especial attention The bass note sometimes skips down a perfect fourth to the *root* of a *major triad.* The augmented sixth above the bass resolves, as usual, up a half step, and the other voices proceed to the nearest chord tones. Fig. 154.

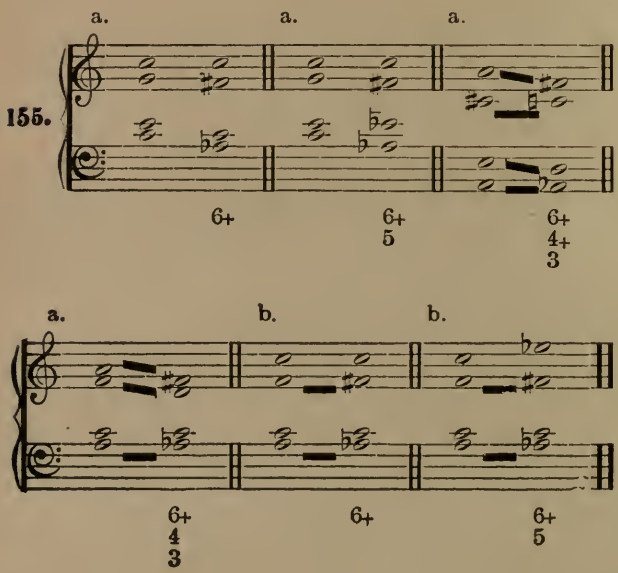
154.



6+

In approaching the chords of the augmented sixth all voices may move in similar motion, providing no faults occur (Fig. 155, *a*), but contrary motion of some voice or voices, especially in approaching the augmented sixth, is preferable. Fig. 155, *b*.

155.

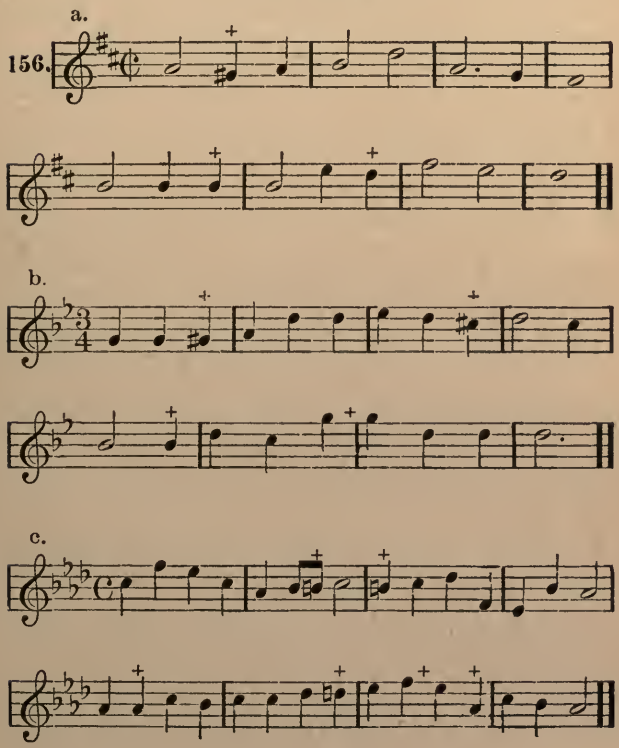


To find the bass note when the soprano is given.

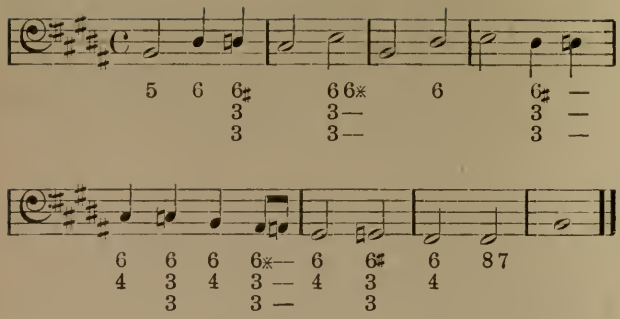
When the soprano of the augmented sixth chord rises a diatonic half step in its resolution, it is the augmented sixth above the bass. When it progresses anywhere else it is the third above the bass.

EXERCISES.

156.



d.



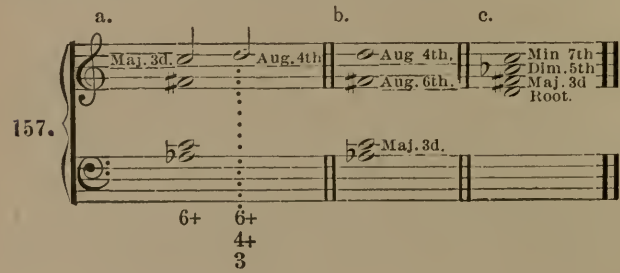
Lesson XLVIII.

Chord of the Augmented Sixth with Augmented Fourth and Major Third.

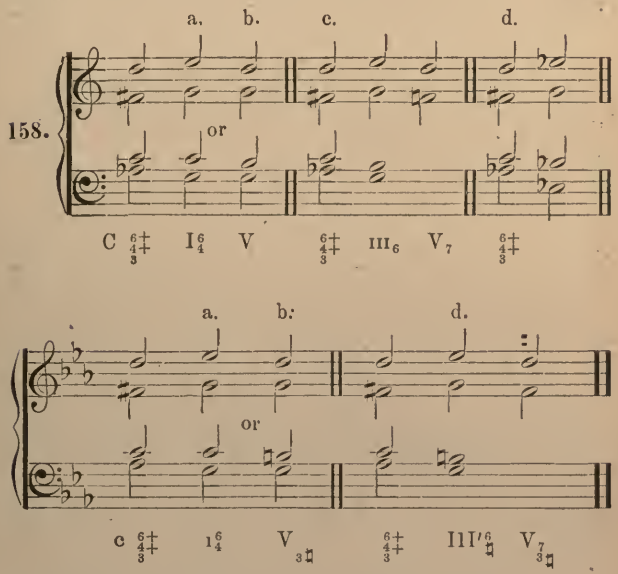
This chord is identical with that of the augmented sixth chord except that instead of having the third above the bass note doubled, as is the case in the augmented sixth chord, one of the thirds is replaced by the *augmented fourth above the bass.* Fig. 157 *a.*

Reading from the bass this chord comprises a major third, augmented fourth and augmented sixth. Fig. 157 *b.*

Reading from the root it comprises a major third, diminished fifth, and minor seventh. Fig. 157 *c.*



Its location and resolutions are the same as those of the augmented sixth, the resolution of the augmented fourth being to the nearest chord tone. The treatment of this chord when it is on any other degree than the major third below the key note is also the same, the augmented fourth in all cases resolving to the nearest chord tone. Fig. 158, *a*, *b*, *c*, *d*.



To find the bass note when the soprano is given.

When the voice progresses upward a diatonic half step, it may be the augmented fourth, or the augmented sixth above the bass note. When it moves upward a whole step it is the augmented fourth. When it remains stationary it may be the third or the augmented fourth. When it descends it is the third.

EXERCISES.

a.

159.

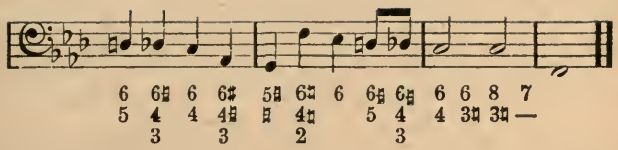
b.

Put 6+ chord wherever marked.

c.

d.

3 6 2 6♯ 6♮ 6 6♯ — 6♯ 6
4 4 4 3 — 4 4
3 3 3

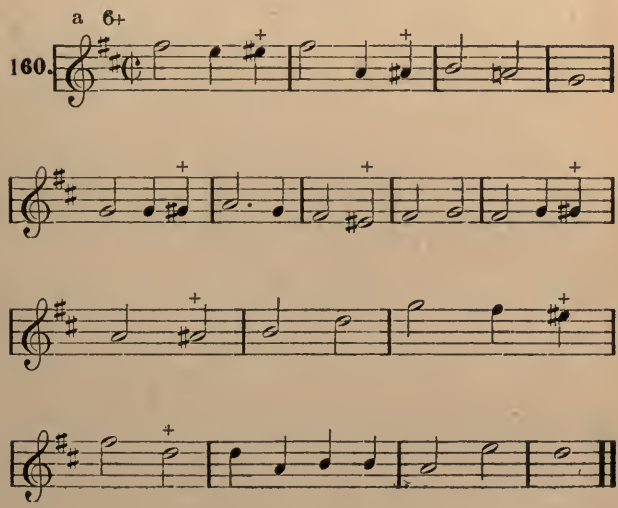


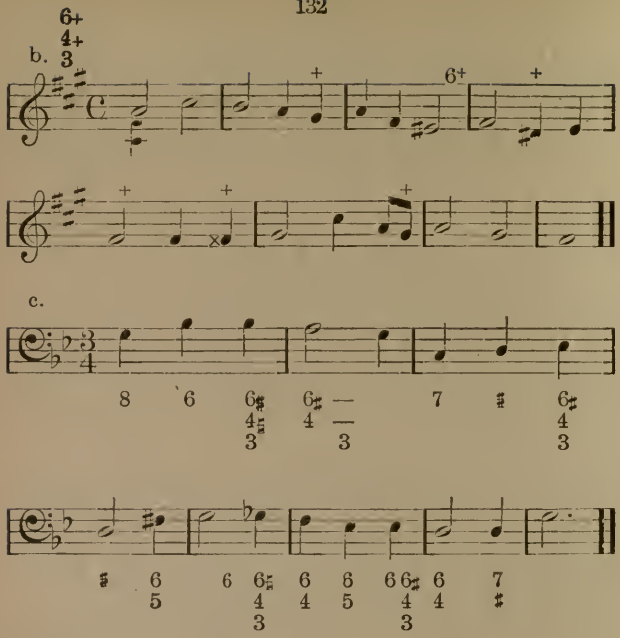
Lesson XLIX.

CHORDS OF THE AUGMENTED SIXTH AND THE AUGMENTED SIX-FOUR-THREE. (CON).

Play and write the resolutions of the $^{6+}$ and $^{6\ddagger}_{4\ 3}$ in all keys; also write the resolutions when the bass note (without key) is given.

EXERCISES.





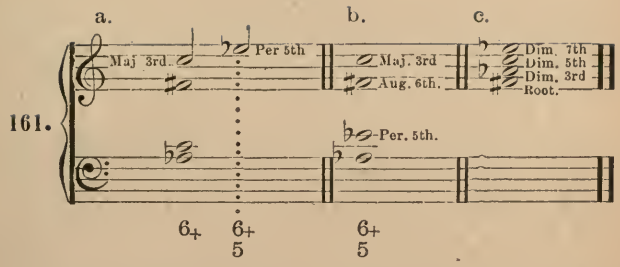
Lesson L.

Chord of the Augmented Sixth with Major Third, and Perfect Fifth.

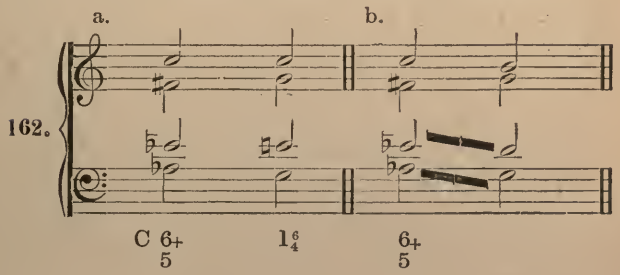
This chord is also identical with that of the augmented sixth, except that the *perfect fifth* above the bass replaces one of the doubled thirds. Fig. 161 *a*.

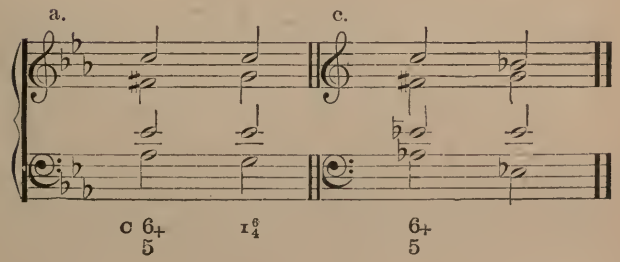
Reading from the *bass note*, it comprises a major third, perfect fifth, and augmented sixth. Fig. 161 *b*.

Reading from the root, it comprises a diminished third, diminished fifth, and diminished seventh. Fig. 161 *c*.



While the resolutions of this chord are the same as that of the augmented sixth, it is considered best to resolve it to I^6_4 only (Fig. 162), omitting the resolution to V on account of the resulting consecutive fifths. Fig. 162 *b*.





The resolution of this chord when the bass note is found on other degrees than a major third below the key note, is the same as the augmented sixth chord except that it cannot resolve to a triad in fundamental position because of the fifths above mentioned.

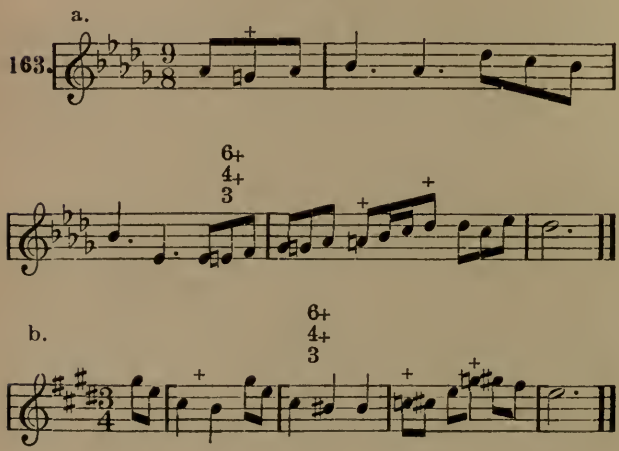
It also takes the resolution when the bass skips down a perfect fourth, to the root of a major triad. The fifth above the bass note goes to the nearest chord tone. Fig. 162 *c*.

To find the bass note when the soprano is given.

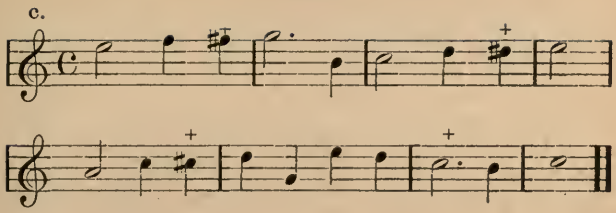
If the soprano moves upward a diatonic half step it is the augmented sixth above the bass note. If it moves upward a chromatic half step it is the fifth above. If it is stationary it is either the third or fifth above the bass. If it moves down a whole step it is the third.

Write and play the resolutions as directed in Lesson XLIX.

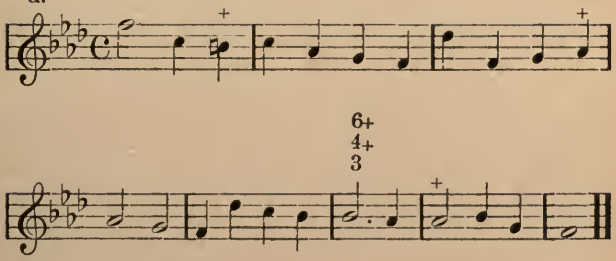
EXERCISES.



c.



d.



Lesson LI.

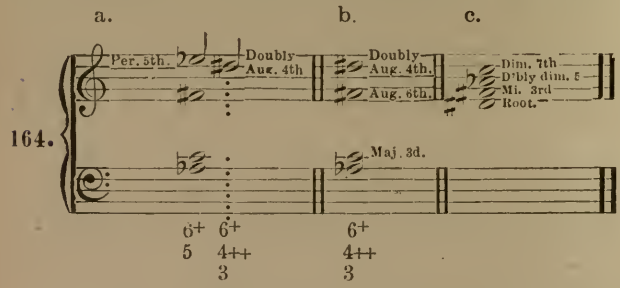
Chord of the Augmented Sixth with Doubly Augmented Fourth and Major Third.

In sound this chord is identical with the augmented six-five chord, and it is also built the same, except that instead of the perfect fifth above the bass, its enharmonic equivalent, the doubly augmented fourth, is used. Fig. 164 *a*.

The chord of the augmented sixth with doubly augmented fourth is not recognized by many writers as such, but is considered a misnotated chord of the augmented six-fifth. Its use, however, is so frequent and logical that it has been thought best to give it a place in this text.

Reading from the bass note it comprises a major third, doubly augmented fourth, and augmented sixth. Fig. 164 *b*.

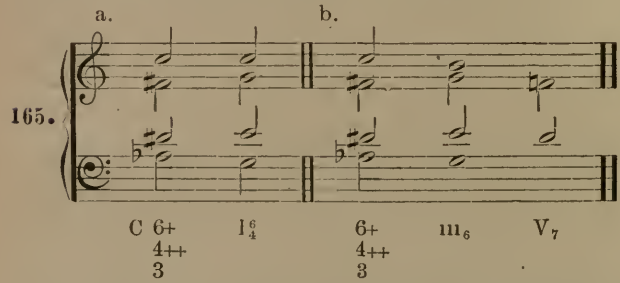
Reading from the root it comprises a minor third, doubly diminished fifth, and diminished seventh. Fig. 164 *c*.



The bass note is almost always found a major third below the key note, in major keys only, and resolves to I^6_4. Fig 165 *a*. The resolution to III^6 may sometimes be substituted, as at Fig. 165 *b*.

When found on other degrees than a major third below the key note, it resolves to a major six-four chord only.

The leading of the voices is the same as in the resolution of the augmented six-five chord, the doubly augmented fourth rising a diatonic half step. Fig. 165 *a*, *b*.



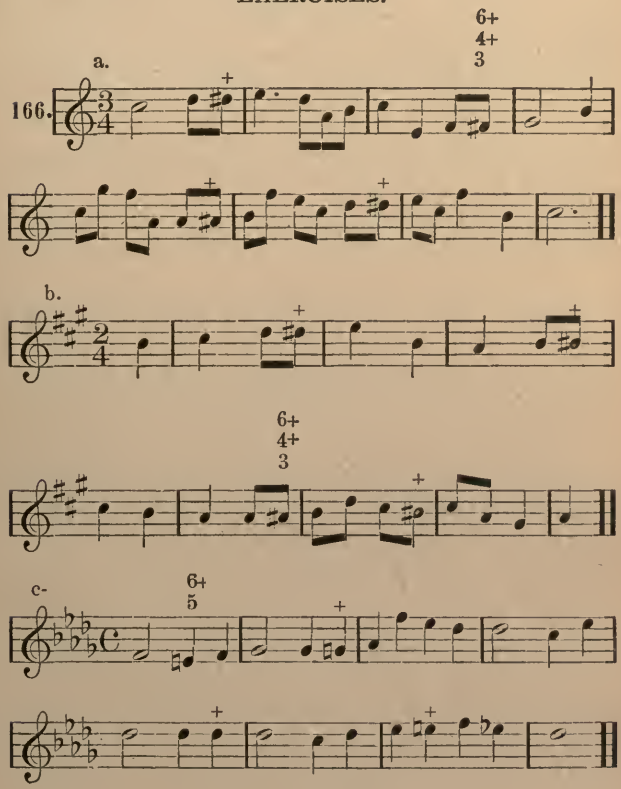
It can not take the resolution in which the bass skips down a perfect fourth.

To find the bass note when the soprano is given.

If the soprano moves upward a diatonic half step it is the doubly augmented fourth, or augmented sixth. If it is stationary it is the third.

Write and play the resolutions of this chord in all major keys.

EXERCISES.



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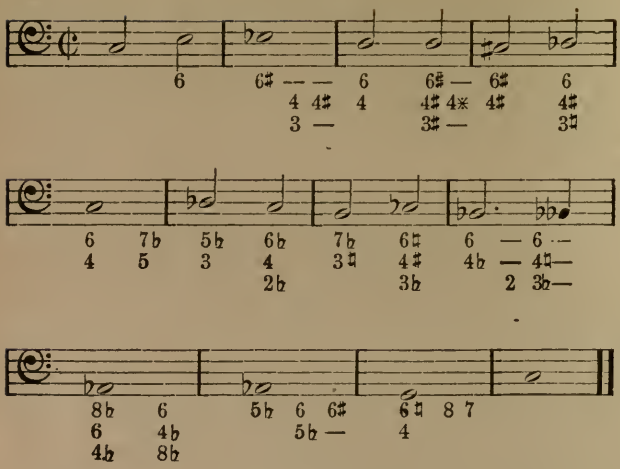


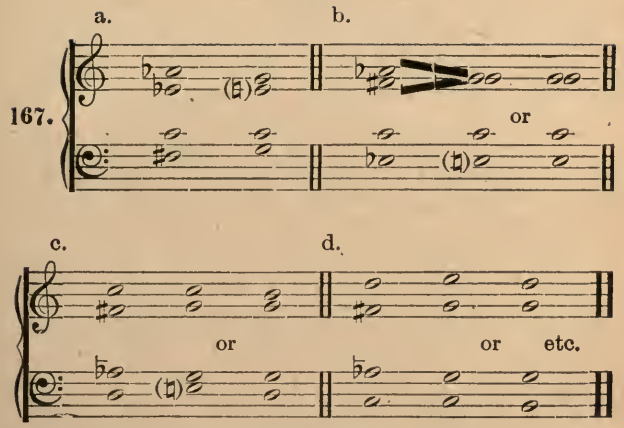
Lesson LII.

Chords of the Augmented Sixth in other than their Conventional Form.

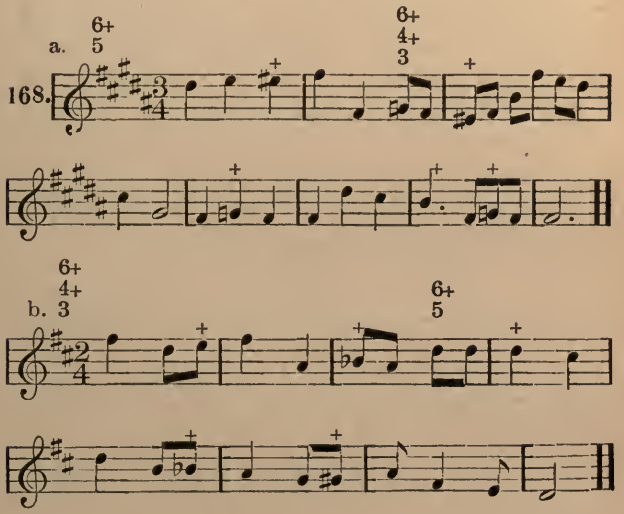
Occasionally the foregoing chords are found in other than their conventional form. In these cases their resolutions are to the same chords as already mentioned, but not necessarily to the same form. The leading of the voices is also the same. Fig. 167 gives a few of these resolutions.

By this changing of the bass note it sometimes happens that the augmented sixth is inverted, becoming a diminished third, in which case the resolution is also inverted, resolving inwardly instead of outwardly. Fig. 167 *b*.

When changed from its usual form it cannot take the resolution in which the former bass note skips down a perfect fourth, as the character of that resolution is lost if the note skipping down is not in the bass.



EXERCISES.



c.

6+
4++
3

6+
4+
3

d.

876 — 6♯ 6♮ 7♮ 5♮ 6♯ — 6♮ 6♯ 7♯
4 5 4 4 ♯ 4 4♯ 4 4 5
3 — 2 3♮ — 2 3♯

6♮ 7♯ 6♯ — — 5♮ 7 —
3♮ 3♯ 3♯ 4♯ 4× 5 —
3♯ — 3 —

6♯ 6× 6♯ 6♮ — 6 8 7
4 4♯ 4♯ 4 — 4
3♯ 3♮ —

Lesson LIII.

The Neapolitan Sixth.

This chord is simply a major triad, the root of which is on the *minor second* degree of the key. and as its name implies, is usually used in its first inversion. In this position its third is doubled. Fig. 169 *a*

It is used in major or minor and resolves to I_4^6, V, V_7, or V_9. Fig. 169 *a*, *b*, *c*, *d*.

In resolving to I_4^6 the bass moves upward a whole step, and the upper three voices move in contrary motion to the nearest chord tones. Fig. 169 *a*. Care must be taken to keep the fifth of the Neapolitan sixth below the root, to avoid consecutive fifths.

In resolving to V, V_7 or V_9, the bass moves upward a whole step, the root skips down a diminished third, and the other voices proceed to the nearest chord tones. Fig. 169 *b*, *c*, *d*. The characteristic feature of this resolution is this skip of a diminished third. Fig. 169 *b*.

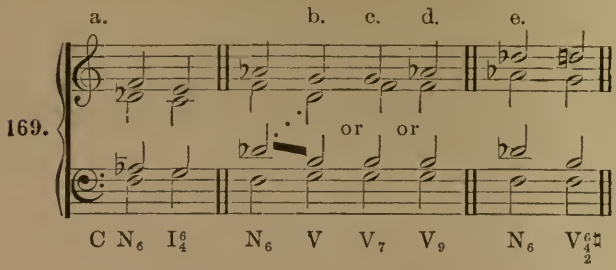
There is no feeling of cross relation between the root of the Neapolitan sixth and the fifth of the dominant triad. Fig. 169 *b*.

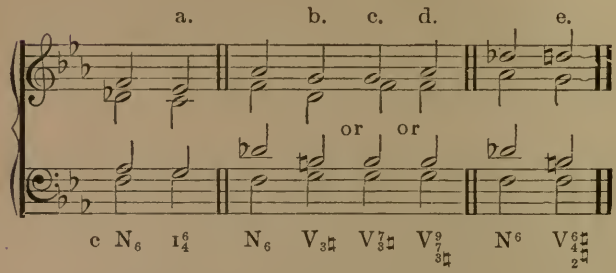
In the resolution of the Neapolitan sixth to V_9, in major keys, the ninth must be a minor ninth; *i. e.*, it must agree with the notation of the fifth of the Neapolitan sixth. Fig. 169 *d*.

The ninth is best kept in the soprano.

There is one other resolution of the Neapolitan sixth that is much used. In it the *root* instead of the third is doubled. It resolves to V_2 as follows: one root skips down as usual a diminished third, the other moves upward a chromatic half-step, and the other tones proceed to the nearest chord tones. Fig. 169 *e*.

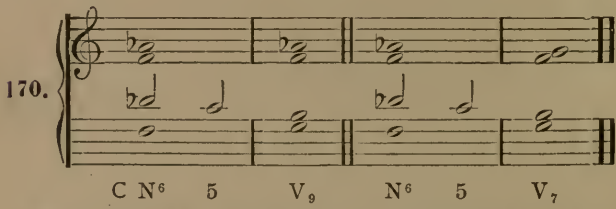
169.





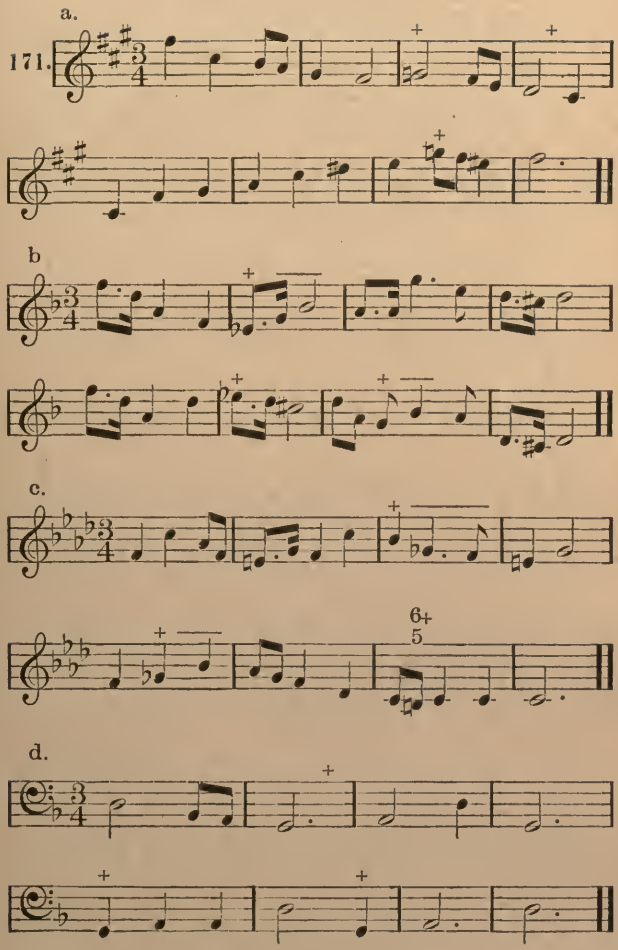
In place of the skip of a diminished third, when resolving to some form of the dominant chord, the passing seventh may be used in progressing from the root of the Neapolitan sixth to the third of the dominant chord. Fig. 170.

170.



Write and play the resolutions of this chord in all keys.

EXERCISES.

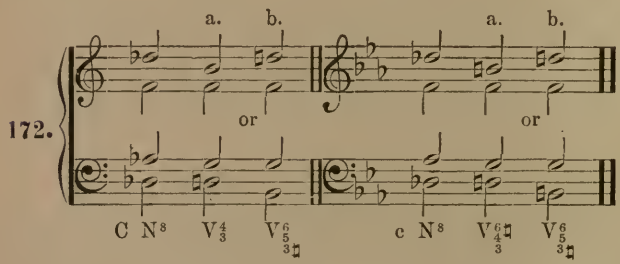


Lesson LIV.

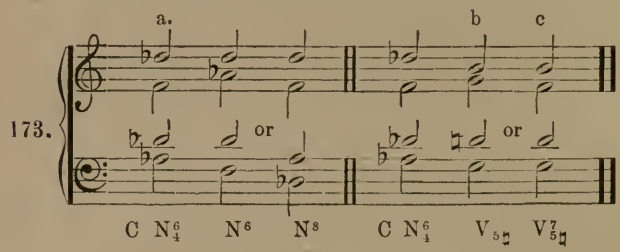
The Neapolitan Sixth Chord. (con).

The Neapolitan chord is often used in fundamental position (N^8), and occasionally in its second inversion (N^6_4).

When in fundamental position it resolves to V^6_5 (172 *b*) or, preferably, to V^4_3 (172 *a*). The root is doubled, and in resolving, one root skips down a diminished third, the other moves upward a chromatic half step, the other chord tones proceed to the nearest chord tones of the chord of resolution. Fig. 172.

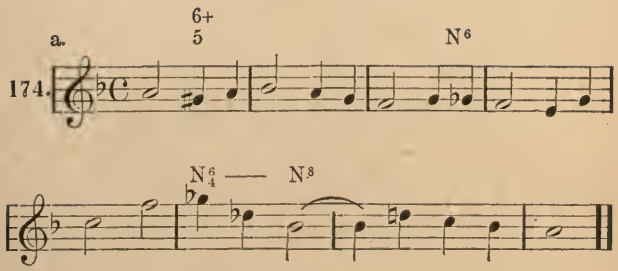


The Neapolitan six-four chord is very seldom used. It resolves usually to another form of the Neapolitan chord, (173 *a*), and to V or V_7. Fig. 173 *b*, *c*.

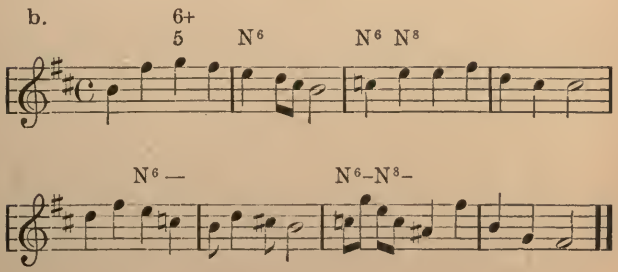


EXERCISES.

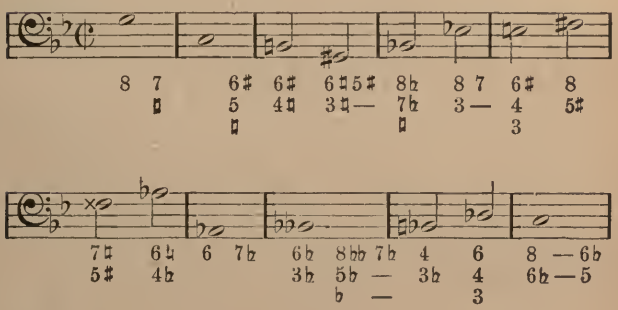
174. a.

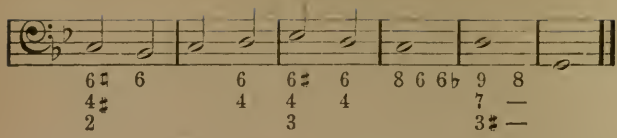


b.



c.



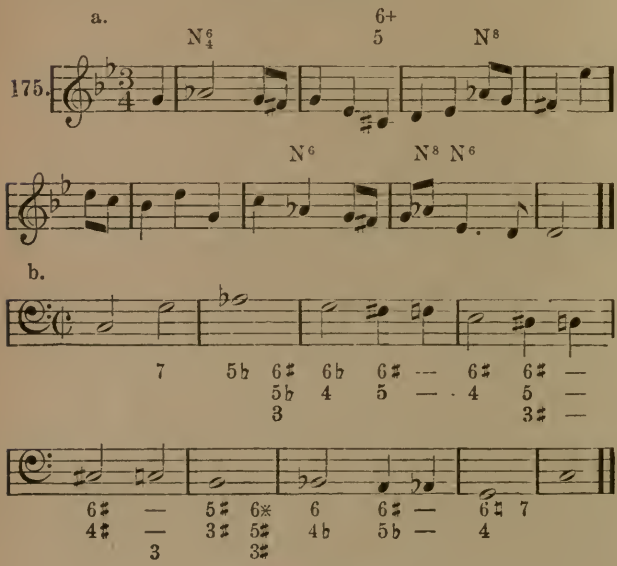


Lesson LV.

REVIEW.

Be prepared to write and play the resolutions of the different chords of the augmented sixth, and also of the Neapolitan chord, as outlined in the preceeding lessons.

EXERCISES.



Lesson LVI.

TEST.

DIVISION II. MODULATION. (CON).

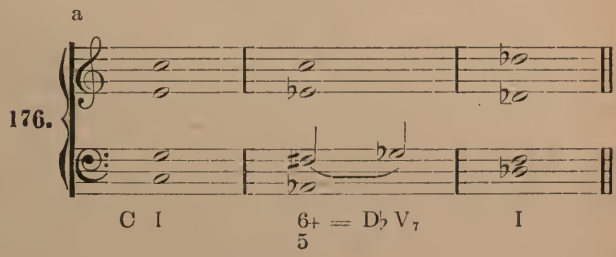
Lesson LVII.

Modulating a Half Step Upward.

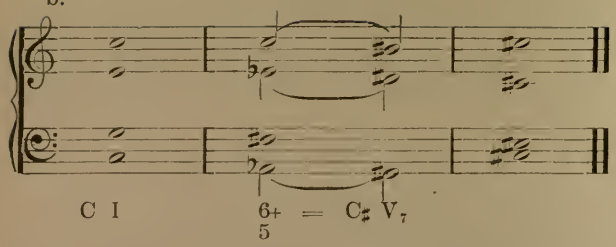
If in the augmented six-five chord the augmented sixth is changed enharmonically to the minor seventh above the bass note, the result will be the dominant seventh of a key a diatonic half step higher Fig. 176 *a*.

In a key a *chromatic* half step higher, the augmented sixth remains the same, while the other voices are changed enharmonically for the above result. Fig. 176 *b*.

A modulation, therefore, to a key a half step higher by way of the dominant seventh of the new key, is really a modulation by enharmonic change of notation of the augmented six-five chord of the old key to the dominant seventh chord of the new.



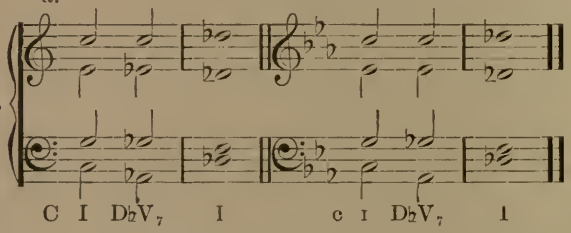
b.



This means of modulating is good in going from major or minor to major or minor. Its use is best, however, in modulating *to major* from either major or minor. Fig. 177, *a*, *b*.

a.

177.



NOTE.—There are certain altered chords in a key, the use of which destroys all feeling of the mode of the key. These chords are the augmented six-fifth, Neapolitan sixth, and the diminished seventh on the raised fourth degree of the key.

When used for modulatory purposes, they neutralize the influence of the old key on the mode of the new, and it is for this reason that modulations made by the use of these chords, may be made to either major or minor.

A final cadence is needed to make this modulation complete.

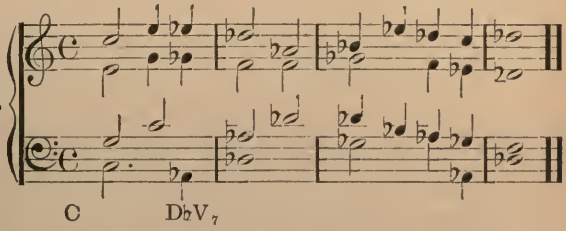
Since the dominant seventh of the new key is equivalent to the augmented six-fifth chord of the old key, the progression from the old tonic triad to the new dominant seventh is made the same as that from the old tonic triad to its augmented six-fifth chord Fig 177.

The new dominant seventh is best used in fundamental position.

In this and succeeding lessons, the old tonic chord must always precede the modulating chord, unless otherwise mentioned.

The illustration in Fig. 178 contains this modulation.

178.

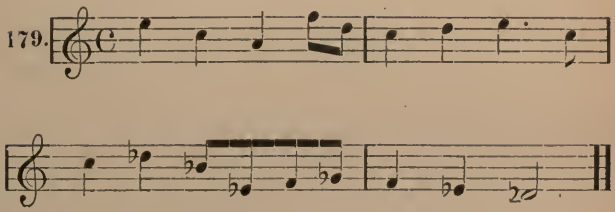


Write and play this modulation as directed in Lesson XXV.

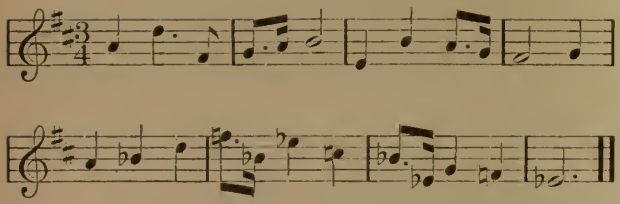
EXERCISES.

a.

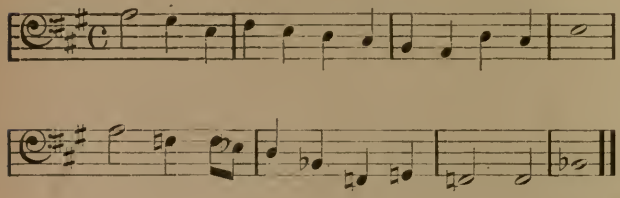
179.



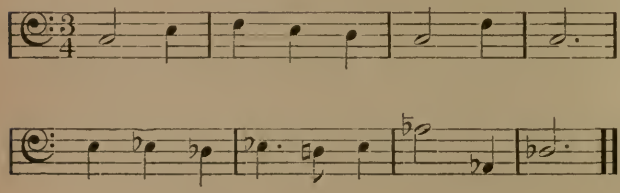
b.



c.



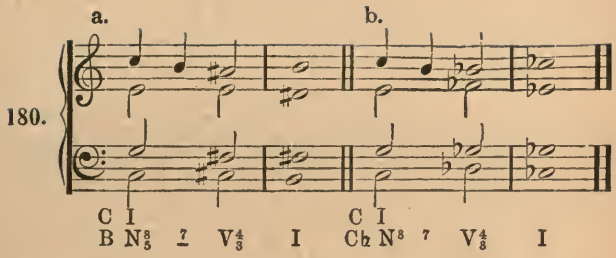
d.



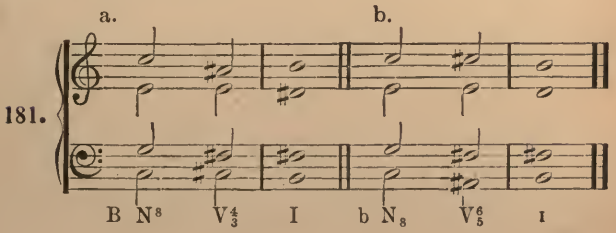
Lesson LVIII.

Modulating a Half Step Downward.

In modulating a half step downward, it will be seen that the old tonic triad is the Neapolitan chord of the new key, and all that is necessary is to proceed to the new dominant seventh as directed in Lessons LIII and LIV. Fig. 180 *a. b.*



The old tonic is best left in fundamental position, and must be complete. This means of modulation is good in going from major or minor to major or minor, but is best in modulating *to major or minor, from major.* Fig. 181 *a, b.* (See note on page 148.)



In the modulation from minor to major or minor, which is seldom used, the old tonic, being a minor triad, is not the Neapolitan chord of the new key. This modulation is good because the third of the new tonic triad is found in the old key.

This means of modulating requires no final cadence to make it complete.

The illustration in Fig. 182 contains this modulation.

182.

C I⁶ B N⁶ V₂

The modulations of this Lesson and Lesson LVII may be combined as in Fig. 183, but from major to major only.

183.

C I D♭ V₇ I C V⁷

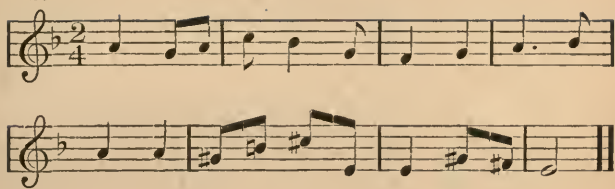
Write and play the modulation of this Lesson, also combine it with Lesson LVII.

EXERCISES.

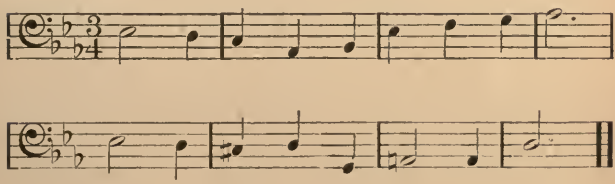
a.

184.

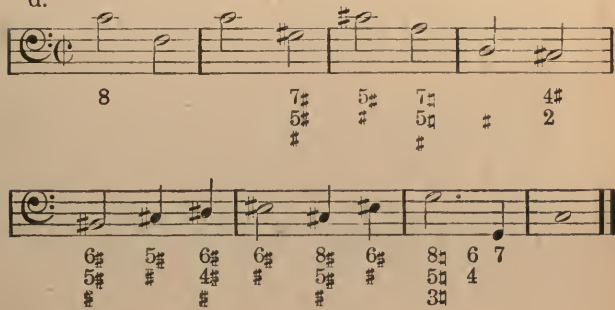
b.



c.



d.

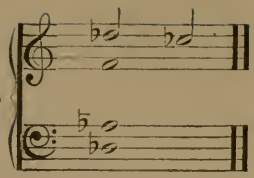


Lesson LIX.

Modulating to Keys an Augmented Fourth or Diminished Fifth Distant.

It will be seen that the dominant seventh of the new key is the Neapolitan chord, with minor seventh added, of the old key. Fig. 185.

185.

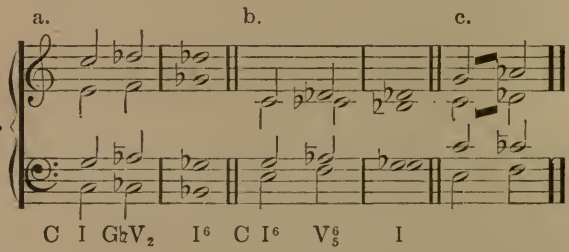


C N⁸ 7♭
G♭(F♯)V₇

It is best to approach the new dominant seventh as a V_2 chord, as in Fig. 186 *a*. Here the upper three voices move up a half step, while the bass moves down a half step.

Progressions such as Fig. 186 *b* are, however, good. Here, as well as in Fig. 186 *a*, the fifth of the old tonic triad which progresses to the fifth of the new dominant seventh must be kept below the root so as to avoid consecutive fifths as at Fig. 186 *c*.

186.

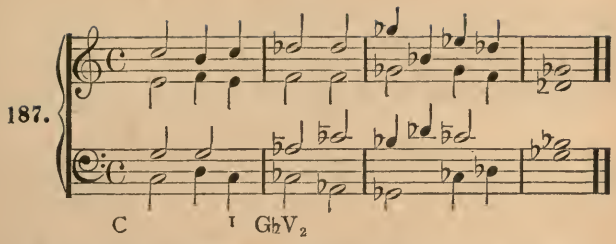


This means of modulating is good in going from major or minor to major or minor, but is best used from major to major. (See note on page 148).

A final cadence is necessary to make this modulation complete.

Fig. 187 contains this modulation.

187.

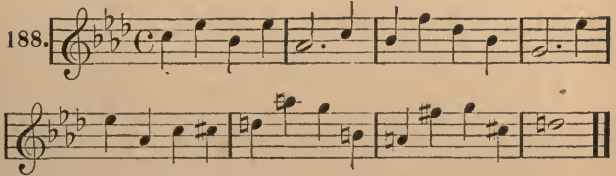


Write and play this modulation, and return to the old key by the same means.

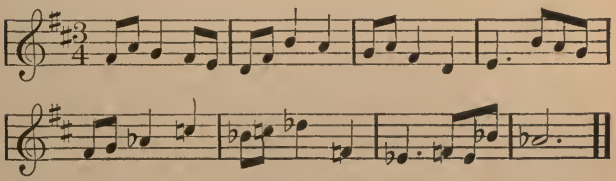
EXERCISES.

a.

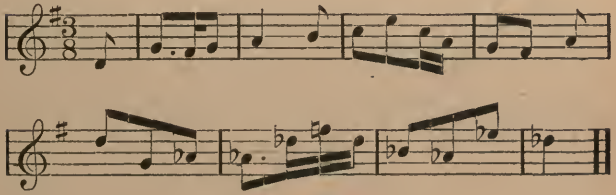
188.



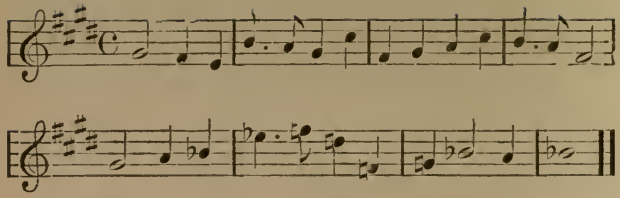
b.



c.



d.



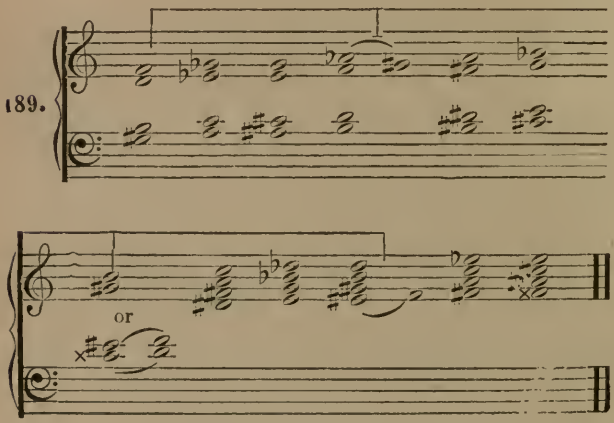
Lesson LX.

Modulating by Means of Enharmonic Change of Notation.

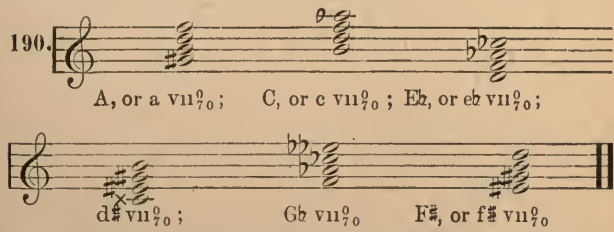
(*a*) Of the diminished seventh chord.

If a chromatic progression of diminished seventh chords in root position be written, it will be found that the fourth chord is identical in sound with the first, and the notation can also be made the same by enharmonic change. Fig. 189.

189.

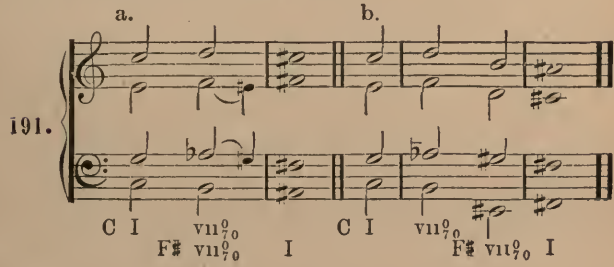


There are, therefore, only three different sounding diminished seventh chords, and since the diminished seventh chord is used as a chord of the seventh on the leading tone in major as well as in minor, and there are thirty keys, each chord or its enharmonic equivalent is found in ten different keys. Fig. 190. To make this chord agree with the notation of the different keys requires six changes of enharmonic notation. Fig. 190.



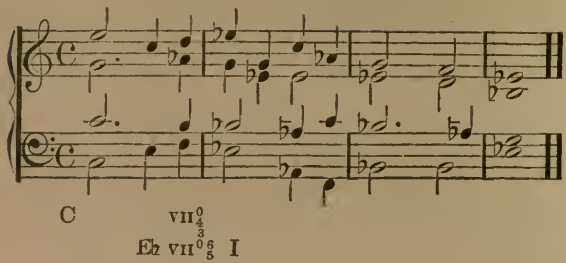
This chord, therefore, readily lends itself as a means of modulation between those keys to which the chord is common.

In modulating, this chord may be notated as in the old or the new key, and resolve directly to the new tonic (191 *a*) or, which is better, it may be repeated, at the same time changing the notation to suit the new key, and placing it in root position. Fig. 191 *b*.



A final cadence is necessary.
Fig. 192 will illustrate its use.

192.

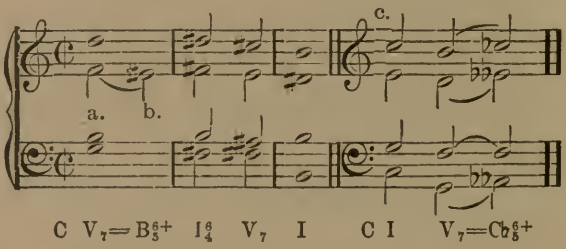


(b). Of the dominant seventh chord.

If the seventh of a dominant seventh chord be changed enharmonically to an augmented sixth, the result will be the augmented six-fifth chord of a key a diatonic half step lower, which is resolved to I$^{6}_{4}$ followed by V_7, I, of the new key. Fig. 193.

In a key a *chromatic* half step lower, the seventh of the old dominant remains the same while the other chord tones are changed to suit the notation of the augmented six-fifth chord of the new key. Fig. 193 *c*. This modulation being made by the use of an augmented six-five chord, is good in modulating from major or minor to major or minor.

193.

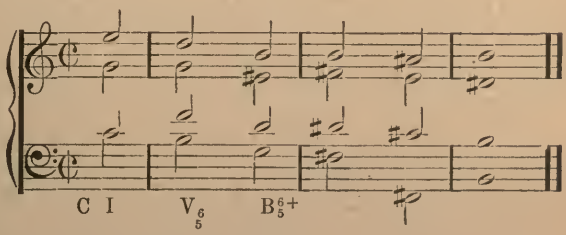


This is an interesting means in modulating to keys a half step lower, and differs, also, from that in Lesson LVIII.

The modulating chord may be notated like the dominant seventh of the old key (193 *a*), or the augmented six-fifth chord of the new. Fig. 193 *b*.

This chord may be in any form but must have the conventional form of the augmented six-fifth chord before resolving to $\mathbf{I}_4^6$ of the new key. Fig. 194.

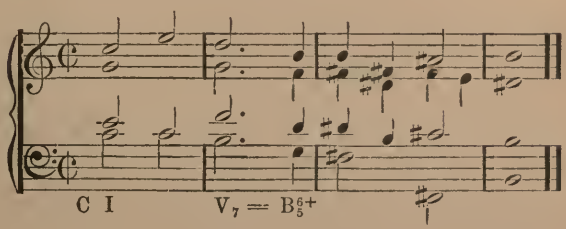
194.



A final cadence is not necessary.

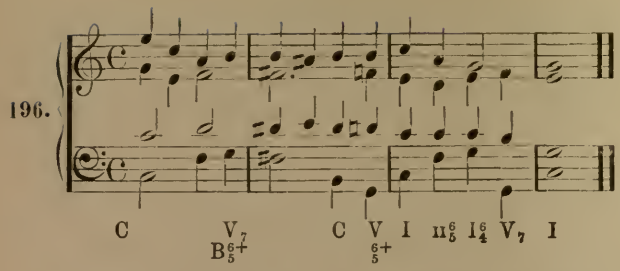
Fig. 195 will illustrate the use of this modulation.

195.



This modulation may be combined with that of Lesson LVII, as in Fig. 196.

196.

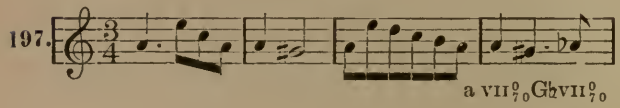


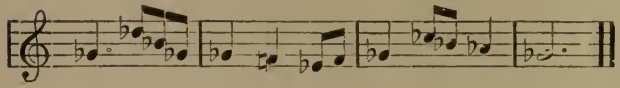
Be prepared to write and play the modulations by the use of both means given in this lesson.

EXERCISES.

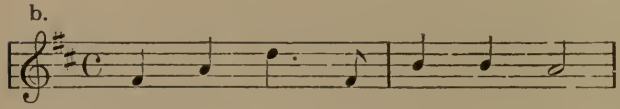
a.

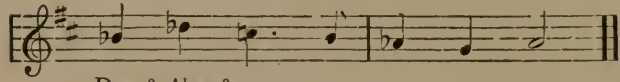
197.





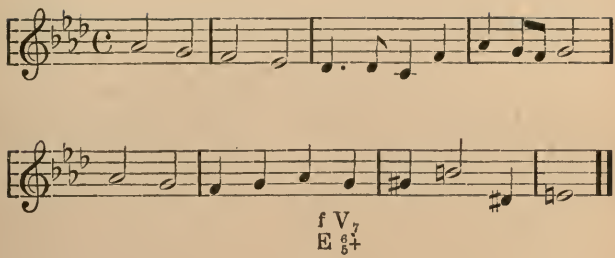
b.



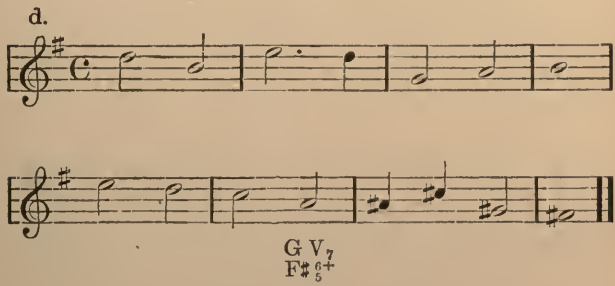


D VII°7 A♭VII°7

c.



d.

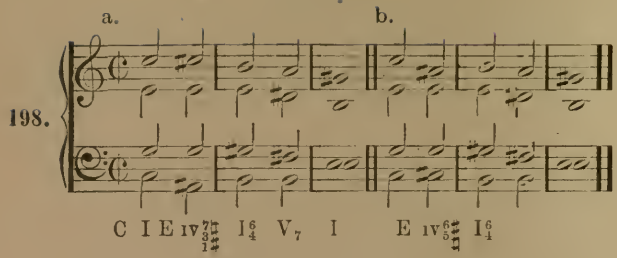


Lesson LXI.

Modulating by the Use of the Diminished Seventh Chord on the Raised Fourth Degree of the New Key.

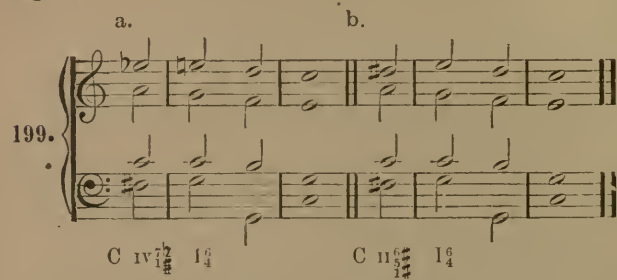
One of the most practical means of modulation is entering the new key through the diminished seventh chord on the raised fourth degree of the new key. Fig. 198 *a*.

This chord is best used in fundamental position. Fig. 198 *a*. Its first inversion is, however, also good. Fig. 198 *b*. In either case it must resolve to I^6_4 of the new key which is succeeded by V_7, I. Fig. 198 *a*, *b*.



NOTE.—In the resolution of the modulating chord in this lesson, to the tonic six-four chord in major keys, the seventh resolves by rising a chromatic half step. Fig. 199 *a*. This is good because the *real* resolution of the seventh is *not* to the third of the tonic six-four chord, but to the fifth of the dominant chord which follows the tonic six-four chord. Fig. 199 *a*. The tonic six-four chord must only be considered interpolated between the modulating and the V_7 chords.

Many writers notate this chord, when resolving to a *major* six-four chord, as a diminished seventh chord on the raised second, instead of on the raised fourth degree. Fig. 199 *b*.



As was stated in the note in Lesson LVII, this is one of the chords with which it is possible to modulate from major or minor to major or minor.

In approaching this chord go to the nearest chord tones.

A final cadence is not needed to make this modulation complete.

The following irregular progressions are permitted in going from the old tonic to the modulating chord in this and the next four lessons; viz., (a) *cross relation* when the tones between which it exists can be found as an interval of a minor second in either key; (b) *cross relation* when the difference in pitch is a whole step; (c) *the skip of an augmented second* if it is found in either key as a minor third. Fig. 200 *c*.

200.

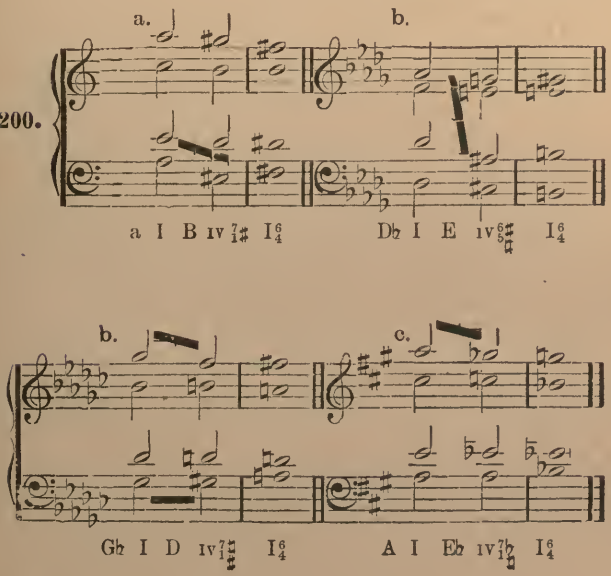
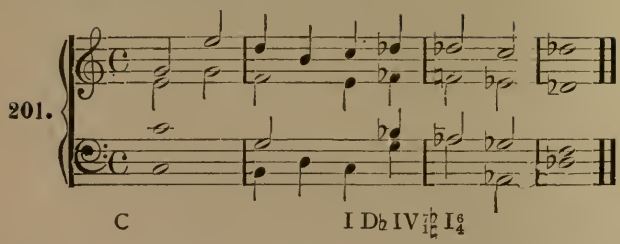


Fig. 201 contains this modulation.

201.

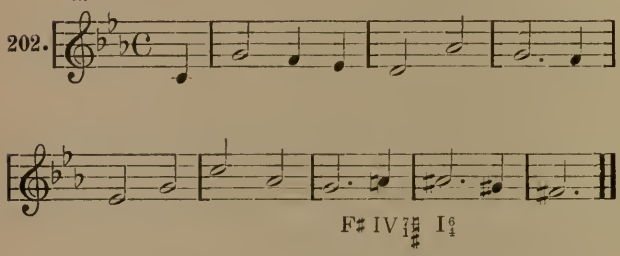


Write and play this modulation.

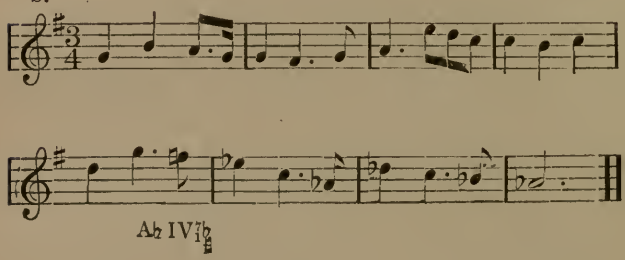
EXERCISES.

a.

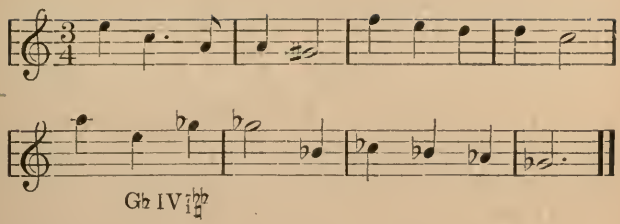
202.



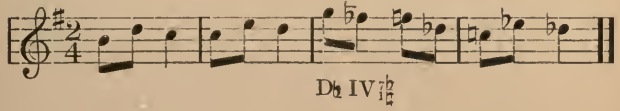
b.



c.



d.

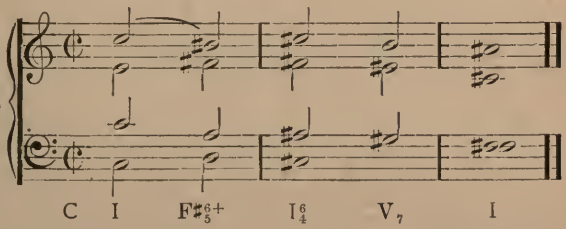


Lesson LXII.

Modulating by the Use of the Augmented Six-Five Chord of the New Key.

In this means, the new key is entered through the augmented six-five chord on the minor sixth degree (a major third below the key note) of the new key, which resolves to I^6_4 and is followed by V_7, I. Fig. 203.

203.



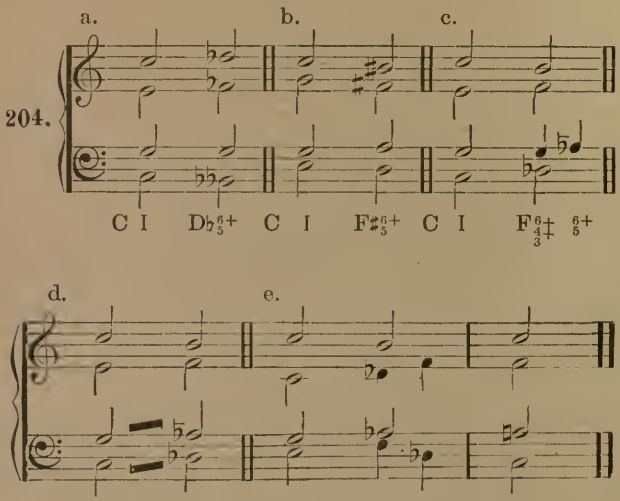
In approaching the augmented six-five chord go to the nearest chord tones.

The old tonic triad may be in root position (a), or first inversion (b) before going to the modulating chord. Fig. 204.

The augmented six-five chord may also be used in other than its conventional form, but before resolving, it must appear in its conventional form. Fig. 204 *e*.

When going to keys a perfect or augmented fourth, or diminished fifth higher, the augmented six-four-three chord may be taken before the augmented six-five chord, (204 *c*), to avoid consecutive fifths as at Fig 204 d.

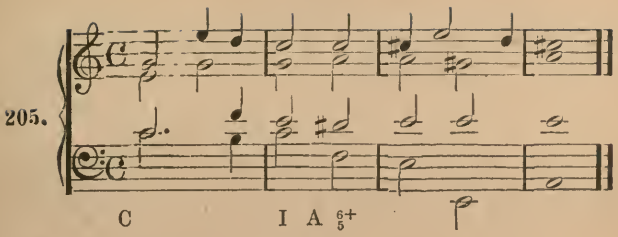
These fifths may also be avoided by using the augmented six-five chord in such form that by inversion they become fourths.



This means of modulating is good in going from major or minor to major or minor, and requires no final cadence to make it complete. (See note in Lesson LVII).

Fig. 205 contains this modulation.

205.

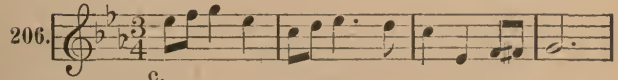


Write and play this modulation.

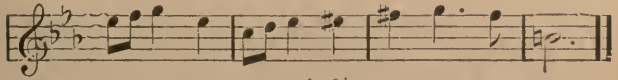
EXERCISES.

a.

206.

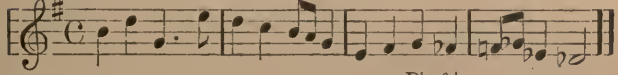


c.



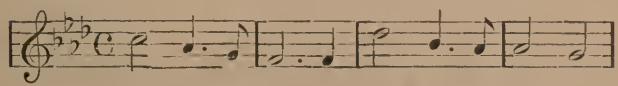
b 6+ 5

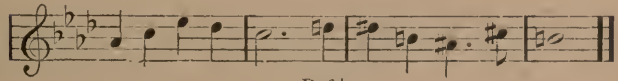
b.



D♭ 6+ 5

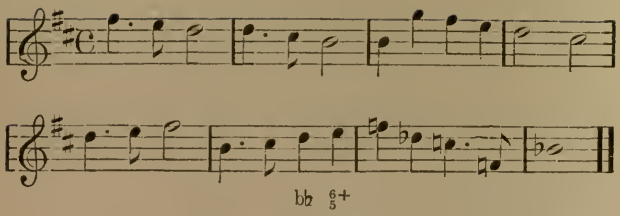
c.





B 6+ 5

d.

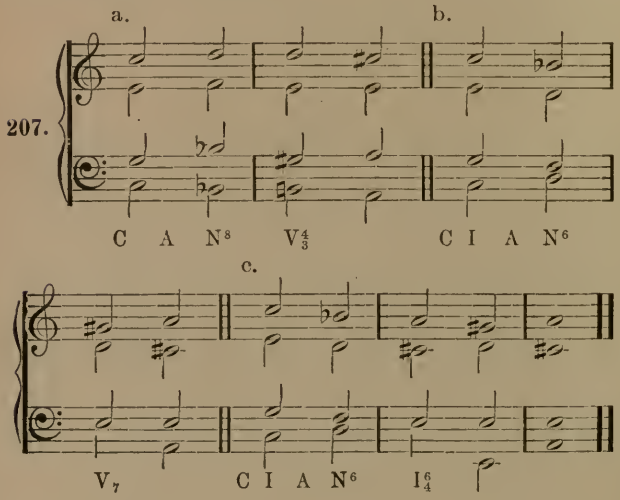


Lesson LXIII.

MODULATING BY THE USE OF THE NEAPOLITAN CHORD OF THE NEW KEY.

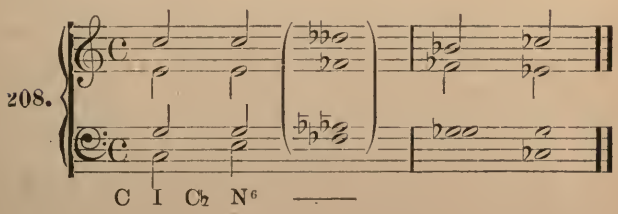
A modulation by means is made by entering the new key through its Neapolitan chord, which resolves in one of its several ways. Fig. 207 *a*, *b*, *c*.

This chord may be in either root position (Fig. 207 *a*), or first inversion. Fig. 207 *b*.



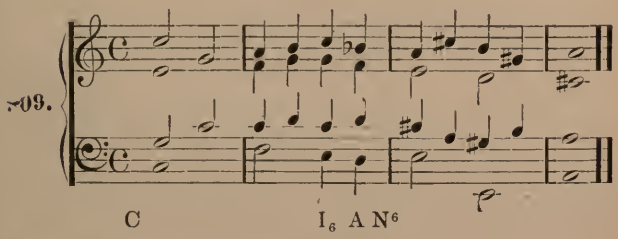
Modulations may be made by its use, from major or minor to major or minor.

Approach the Neapolitan chord by going to its nearest chord tones The old tonic triad may be used in root position or first inversion, and may have any interval doubled before progressing to the Neapolitan chord. It is best to make the notation of this chord agree with its key, but its enharmonic equivalent may be used if it simplifies the reading. Fig. 208.



A final cadence is not necessary.

Fig. 209 contain this modulation.

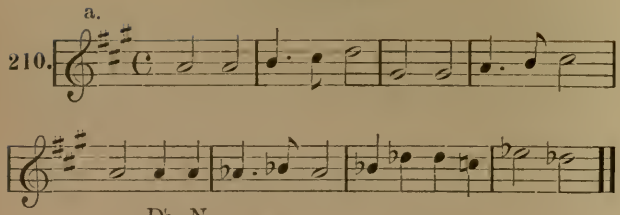


Write and play this modulation.

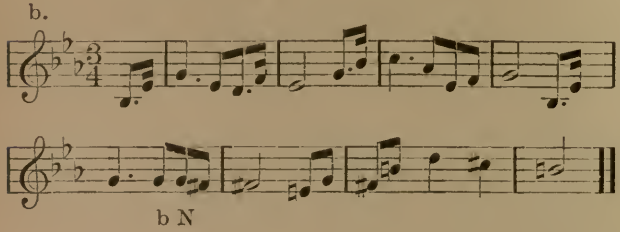
EXERCISES.

a.

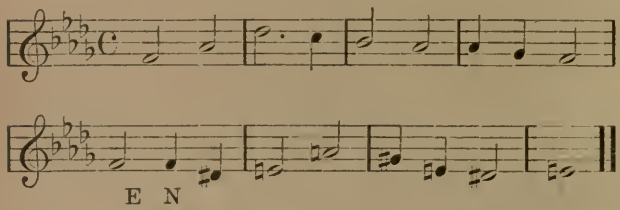
210.



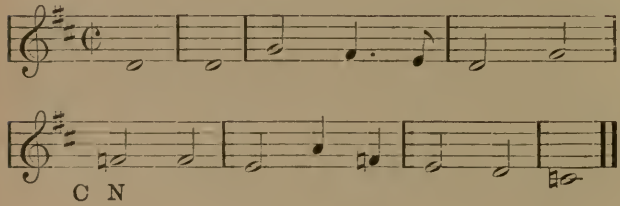
b.



c.



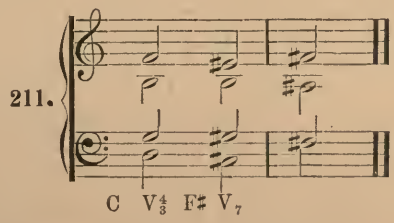
d.



Lesson LXIV.

Modulating by the Use of the Deceptive Resolution of the Dominat Seventh.

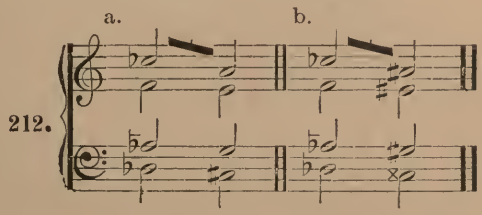
A modulation may be made by resolving the dominant seventh deceptively to the dominant seventh of the new key. Fig. 211.



The progression to the new dominant seventh is made by going to the nearest chord tones.

No voice may progress more than a whole step, or its equivalent.

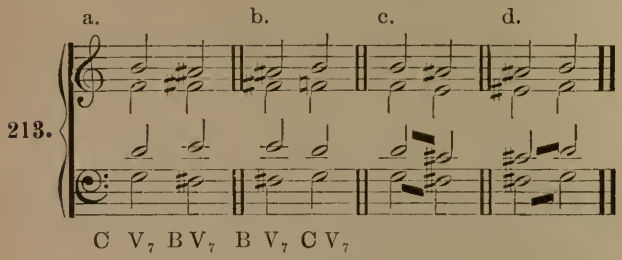
The progression of a diminished or doubly diminished third is good, as the movement is equivalent to a whole, and a half step, respectively. Fig. 212 *a*, *b*.



Either dominant seventh may be used in any inversion, and when used in fundamental position, the fifth may be omitted in either or both.

The upward resolution of the seventh is permitted in this and in Lesson LXV, when it progresses a half step, or its equivalent.

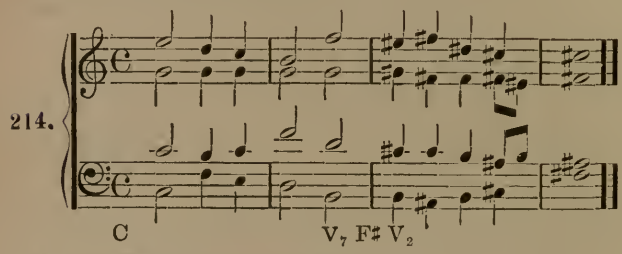
In modulating to keys a half step lower, double the root in the new dominant seventh (*a*), and when going up a half step, double the root in the old dominant seventh;(*b*). In both instances, both dominant seventh chords must be in root position. This is necessary to avoid consecutive fifths. Fig. 213 *c*, *d*.



This modulation is good in modulating from major or minor to major or minor, except the Homonymic key (C to c or c to C).

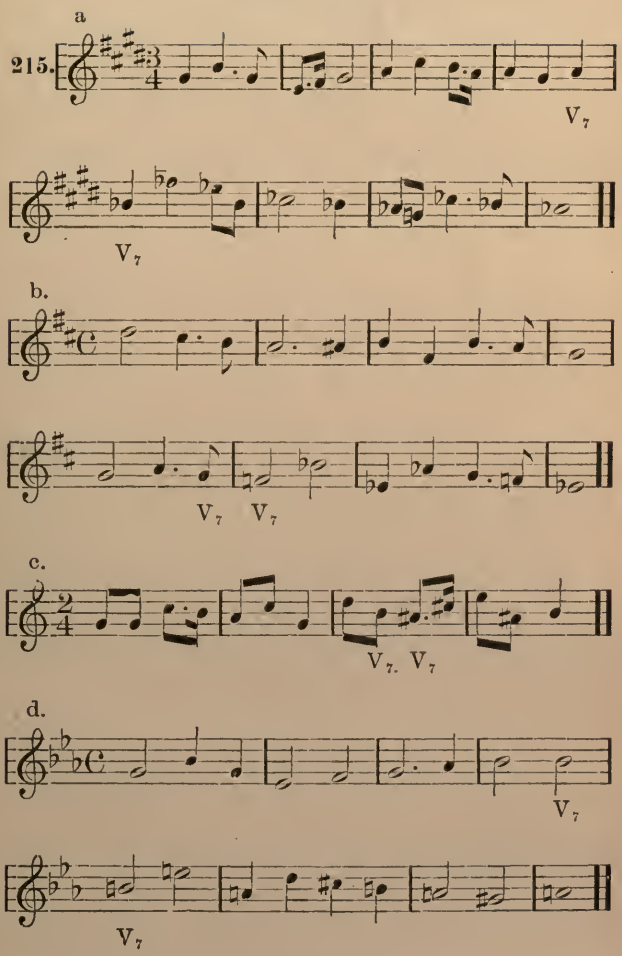
A final cadence is needed.

Fig. 214 contains this modulation.



Write and play this modulation.

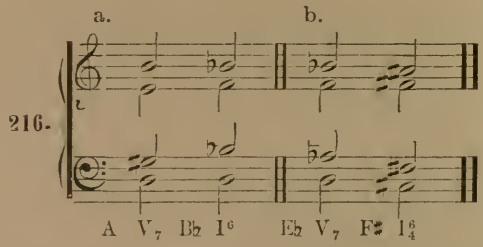
EXERCISES.



Lesson LXV.

Modulating by the Use of the Deceptive Resolution of the Dominant Seventh. (con.)

A modulation may be made by resolving the dominant seventh deceptively to the tonic triad of the new key. Fig. 216.



Approach the new tonic triad by going to the nearest chord tones.

All progressions permitted in the preceding lesson may be used here.

A final cadence is needed, except when the deceptive resolution is made to a I^6_4 chord with fifth doubled, as at Fig. 217.

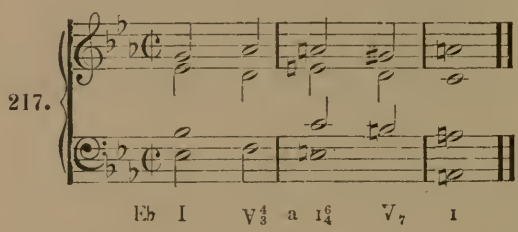
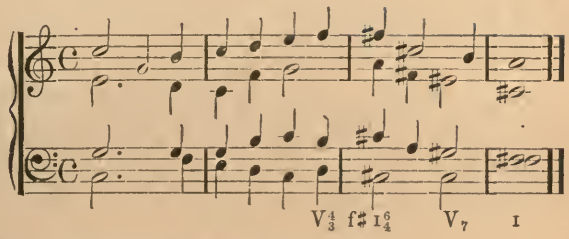


Fig. 218 contains this modulation.

218.

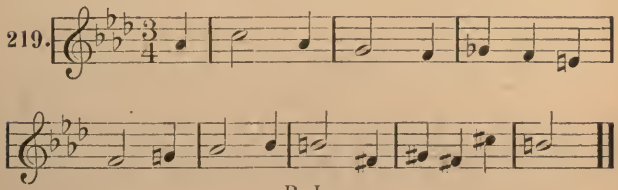


Write and play this modulation.

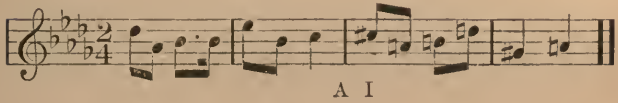
EXERCISES.

a.

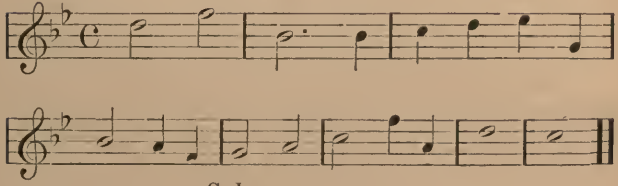
219.



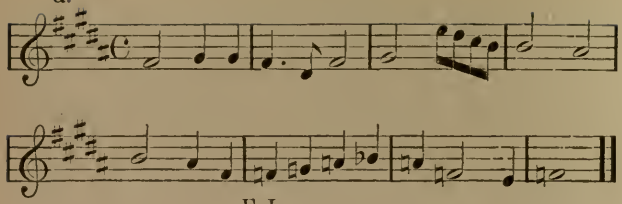
b.



c.



d.



F I

Lesson LXVI.

Review or Test.

Be prepared to write or play any of the modulations in the preceding lessons, taking not more than three minutes for each modulation.

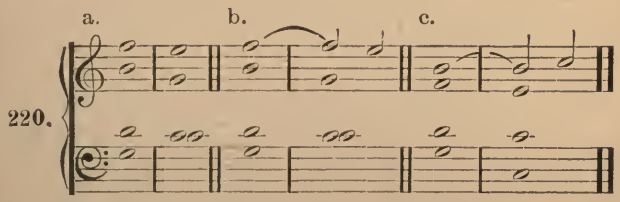
Part V.

Lesson LXVII.

Suspensions.

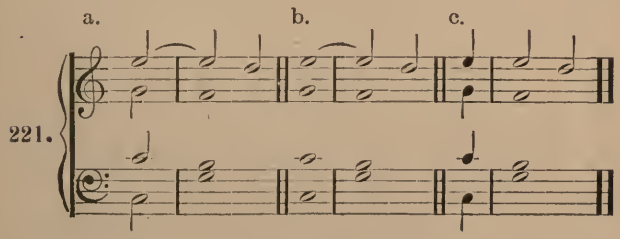
The substitution of a tone which is a degree higher (or lower) than the regular chord tone to which it later proceeds, is called a suspension. Fig. 220 *b*.

When the substituted tone proceeds upward to a chord tone, it is, strictly speaking, not a suspension, but a retardation. Fig. 220 *c*. The downward progression only, therefore, will be called a suspension.



The suspension must be prepared. Fig. 221.

The preparation must be as long (*a*), or longer (b), in time value than the suspension; but when the preparation is not tied to the suspension it may be shorter. Fig. 221 *c*.

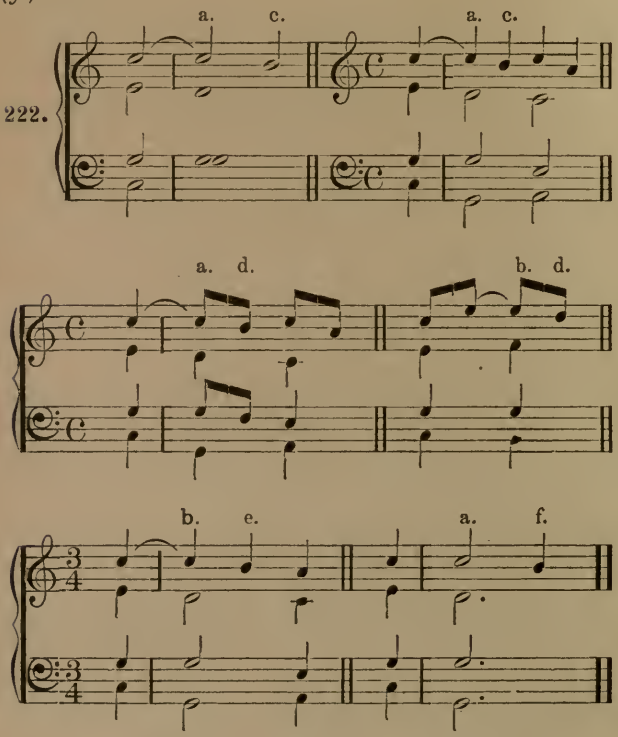


The suspension must come on the strong beat (*a*), or the strong part of the beat following the preparation. Fig. 222 *b*.

The resolution must come on the weak beat (*c*), or weak part of the beat (*d*) following the suspension. Fig. 222.

In triple rhythm it may come on the second (*e*) or third (*f*) count.

222.



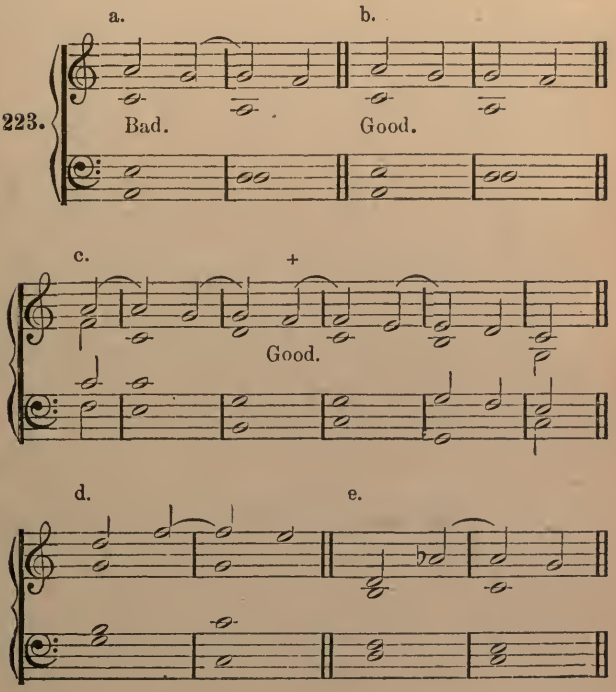
Any interval of a triad may be the preparation of a sus pension.

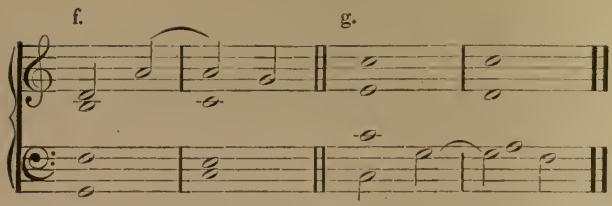
The passing seventh may be used as preparation when it is not tied to the suspension (*b*), or is one of a series of degreewise suspensions in the same voice· Fig. 223 *c*.

The minor (*d*), or diminished seventh (*e*), and the ninth of V_9 (f), when approached by a skip in an upward direction are also good as preparation of a suspension.

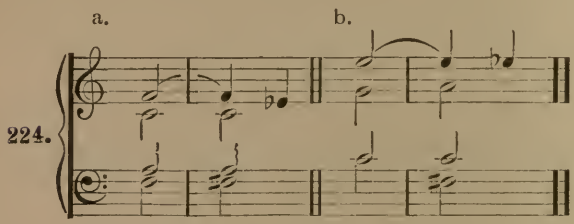
The six-four chord may be approached by skip in an upward direction from another position of the same chord, when the bass note becomes the preparation of a suspenpension. Fig. 223 *g*.

223.



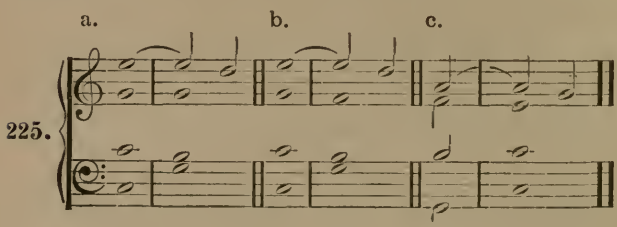


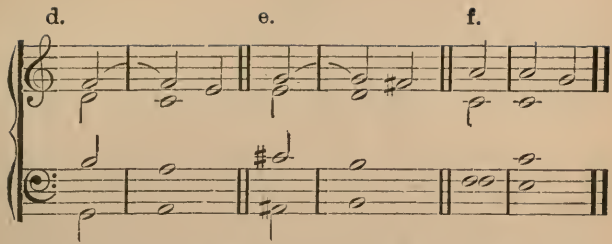
Any interval of a chord may be suspended in any voice, except that the seventh of the diminished seventh is the only seventh that may be suspended. Fig. 224 *a*, *b*.



The suspension must be foreign to the chord.

In suspending the fifth of a *triad* in root position, it only results in forming a chord of the sixth. Fig. 225 *a* The suspension of a fifth, however, is good when used as in Fig. 225 *c*, *d*, *e*, *f*, or when in a chord of the seventh as in Fig. 225 *b*.



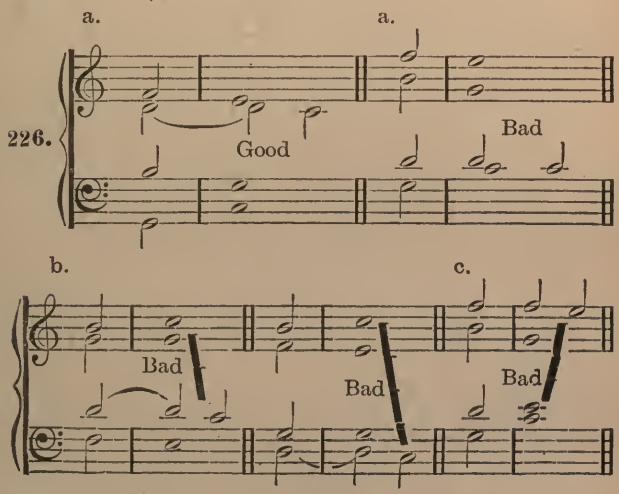


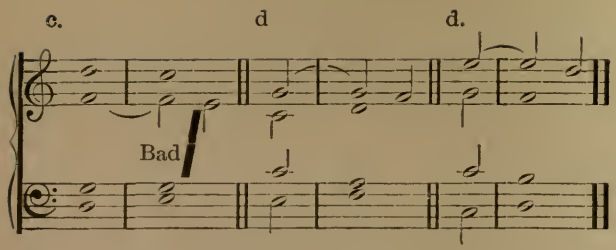
NOTE.—The progression at *c* feels like a suspension because the 9th, its preparation, calls for resolution So also those at *d* and *e* are good because the seventh, their preparation, calls for resolution.

The one at *f* is good because the fourth between the bass and the suspension calls for resolution to a third.

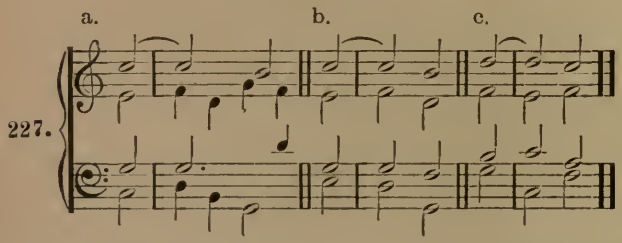
The note of resolution when below the suspension must be at least a ninth from the suspension. (*a*) Its presence above the suspension is forbidden. Fig. 226 *b*.

Do not suspend the major third (*c*), and seldom the minor third (*d*), when already present in any other voice. Fig. 226 *c*.

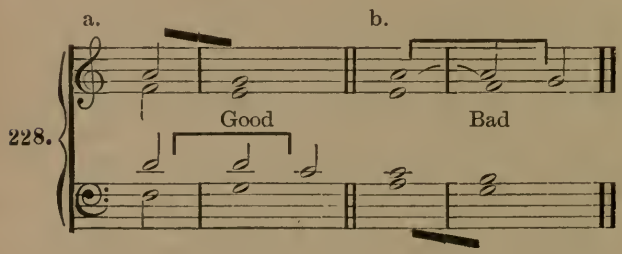




The position of the chord of resolution may change before (*a*), or at the same time (*b*) that the suspension resolves. A change of harmony may take place simultaneously with the resolution of the suspension. Fig. 227 *c*.

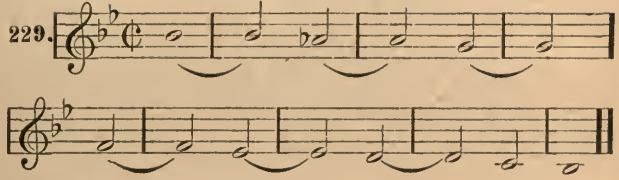


Consecutive fifths (*a*,, but not octaves (*b*), are saved by the suspension. Fig. 228

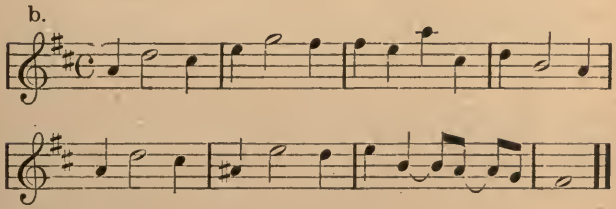


EXERCISES.

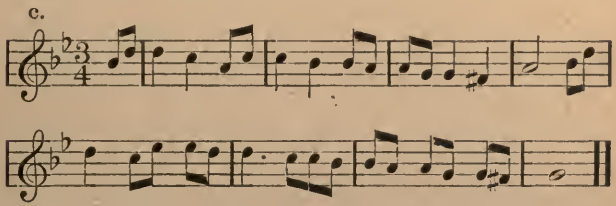
229. a.



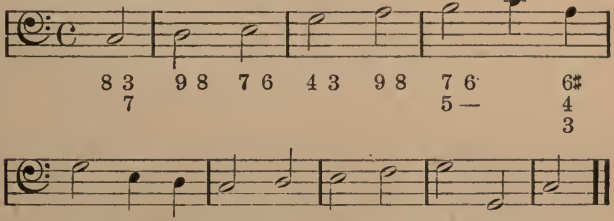
b.



c.



d. Suspension in Soprano only.



Lesson LXVIII.

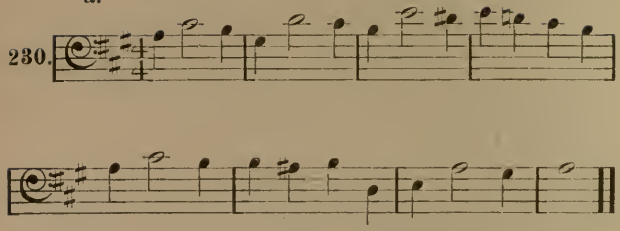
Suspension. (con).

Suspensions in lower voices.

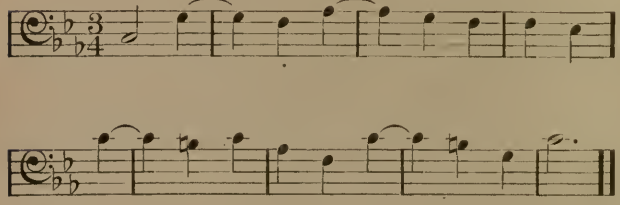
EXERCISES.

a.

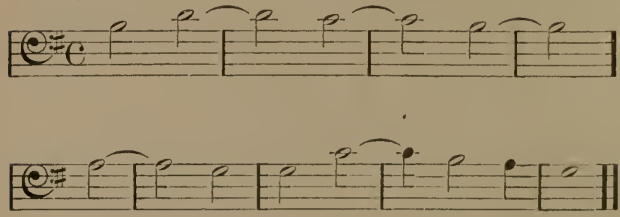
230.



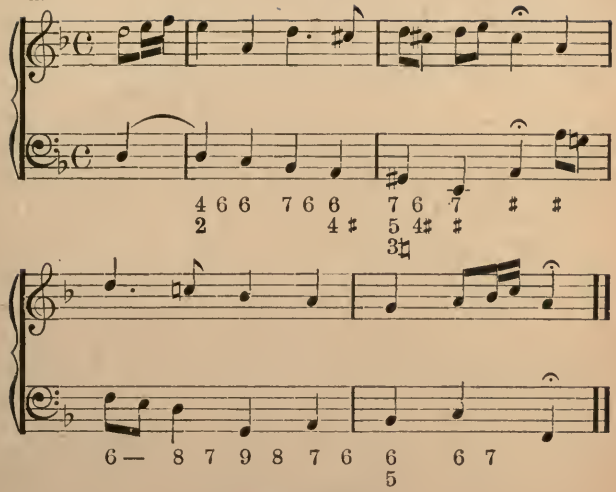
b.



c. Tenor.



d.



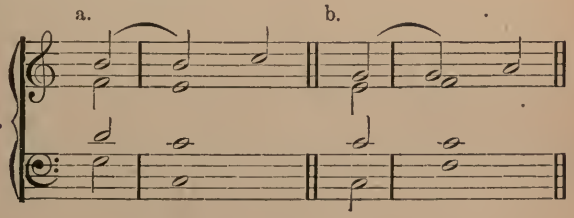
Lesson LXIX.

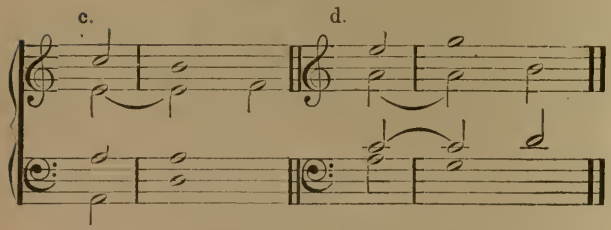
Retardation.

The suspension resolving upward as Fig. 231 is called a *Retardation*. It is subject to the rules given for the suspention.

While some authorities permit the retardation of any interval of a triad, its use is best confined to the root and third (231 *a*, *b*), and to the fifth only when it resolves by rising a *half* step (231 *c*), or is accompanied by the retardation of the third, (231 *d*).

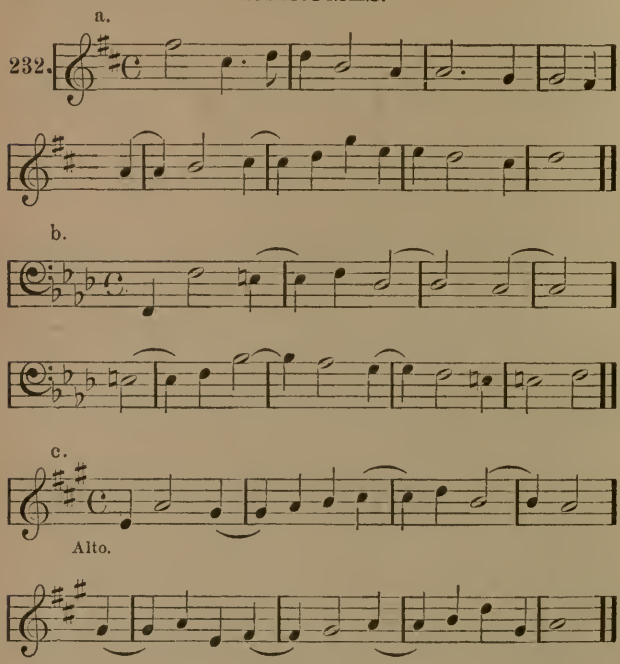
231.





The note of resolution may be doubled only when it is the root and is at least a seventh below the retardation. Fig 231 *a*.

EXERCISES.



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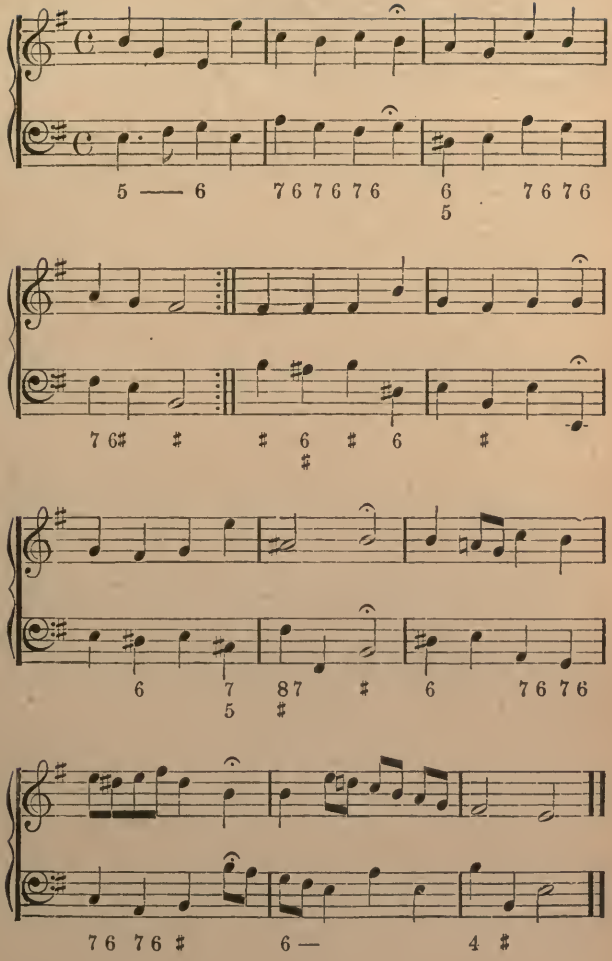
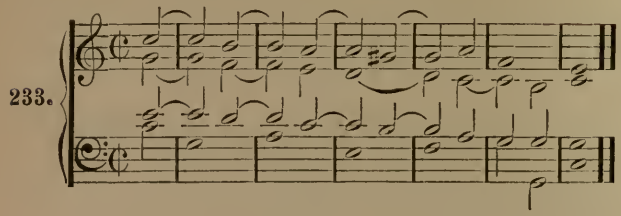


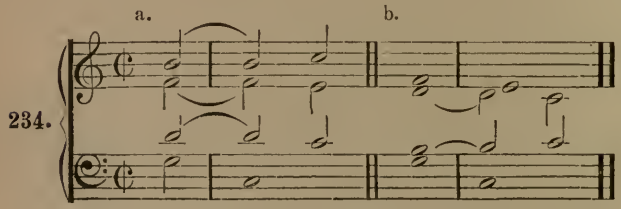
Lesson LXX.

Suspensions in More Than One Voice.

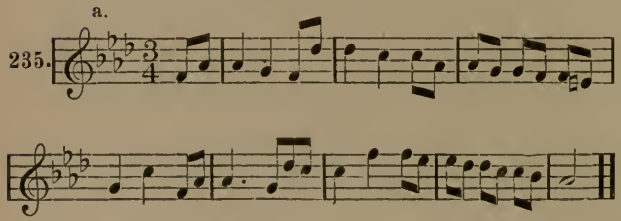
Suspensions may occur in more than one voice at the same time. Fig. 233.



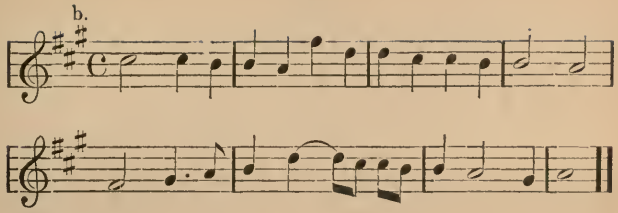
The retardation and Suspension may also appear simultaneously. Fig. 234 *a*. Their resolution to the unison, as at Fig. 234 *b*, is good.



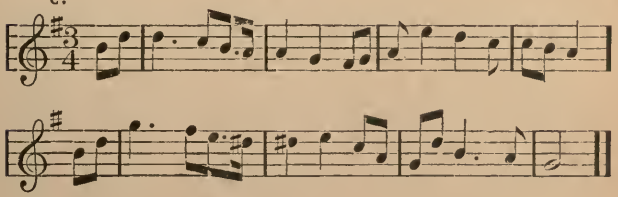
EXERCISES.



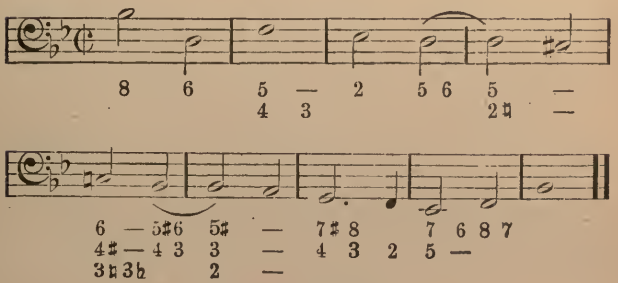
b.



c.



d.



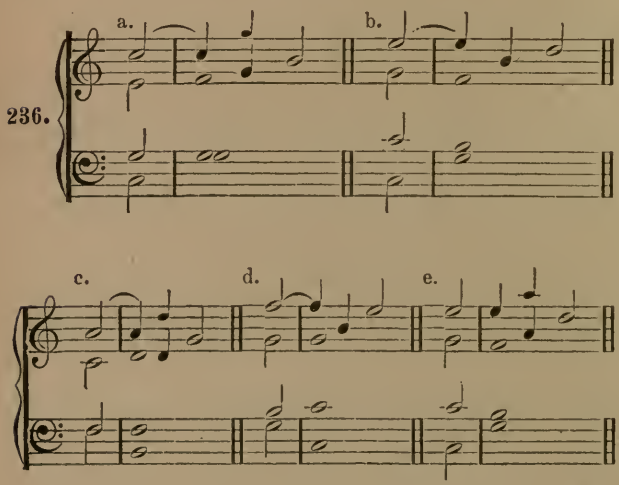
Lesson LXXI.

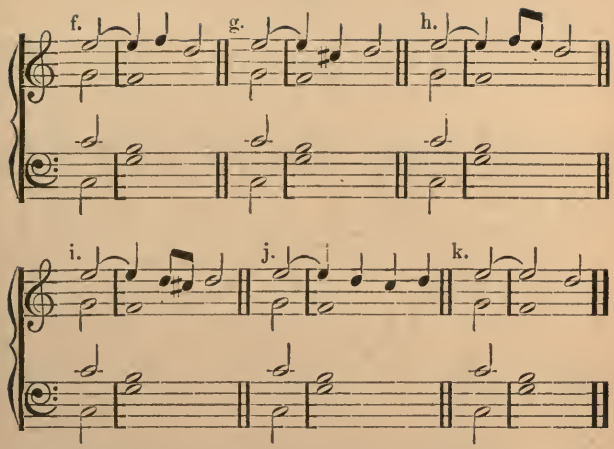
The Ornamental Resolution of the Suspension.

Instead of the suspension being resolved directly to the note of resolution, one or more notes may be interpolated. The *relative* position of the suspension and its resolution must, however, remain the same. The notes interpolated take their time value from the suspension.

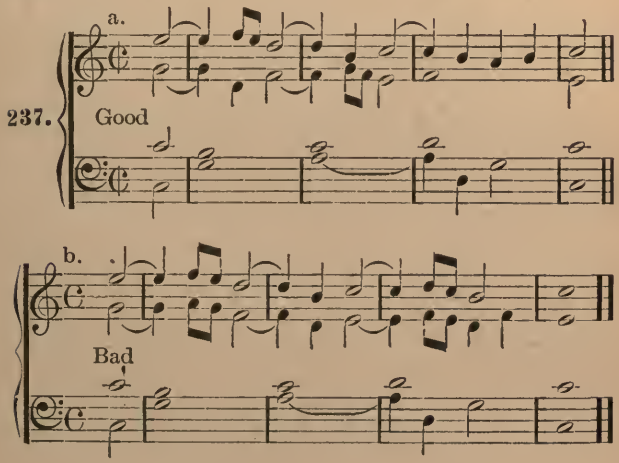
The use of the ornamental resolution will be confined to those at Fig. 236. The suspension may skip to any tone belonging to the chord of resolution, including the seventh and ninth, before going to the note of resolution (*a*, *b*, *c*, *d*, *e*), or it may move up one degree and skip to the note of resolution, or it may skip down a third and then proceed to the note of resolution. (*f*, *g*). In the resolutions at *f* and *g*, a note may be interpolated, instead of making the skip, as in *h* and *i*. The resolution at Fig. 236 *j*, although an exception to the rule, is good. There the note of resolution, instead of being in its accustomed place, appears on both sides of that place.

If the ornamental notes be taken from the resolutions in Fig. 236, it will be seen that the suspensions are the same as in previous lessons. Fig. 236 *k*.





Do not use the same kind of ornamental resolution simultaneously in two or more voices. Fig. 237 *b*.



It is also best not to use the same form of resolution in successive suspensions. Fig. 238 *b*.

238. a. Good

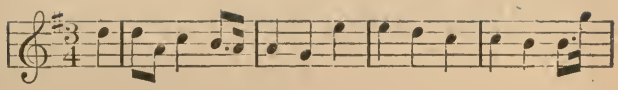
b. Bad

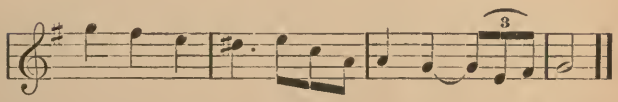
EXERCISES.

239. a.

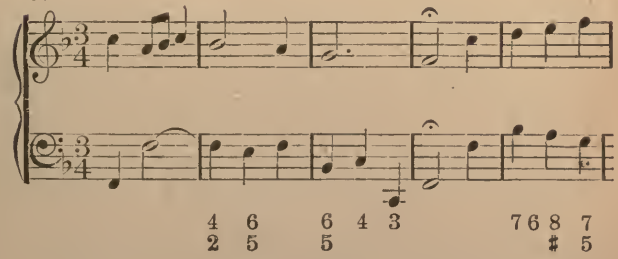
b.

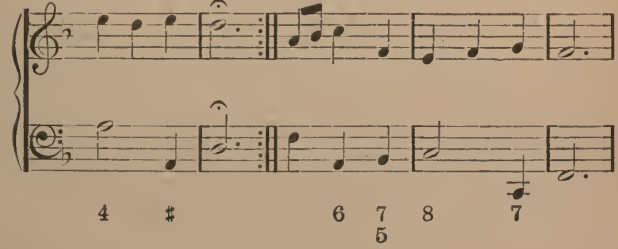
c.

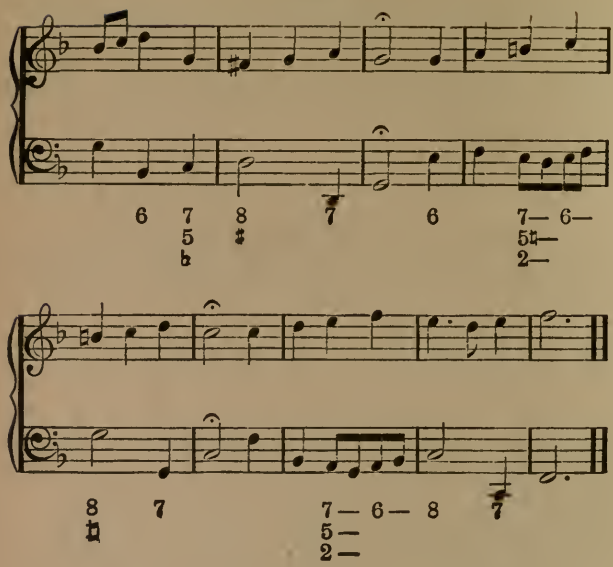




d.





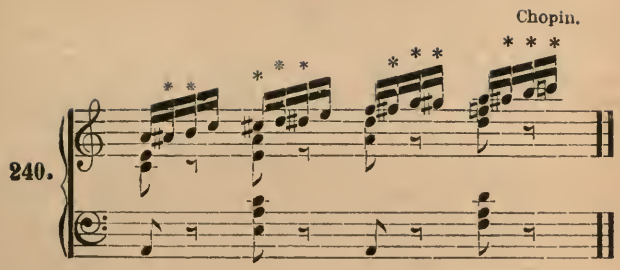


Lesson LXXII.

The Passing tone and the Embellishment.

The Passing tone.

A passing tone is one that is foreign to the chord with which it appears, and is approached and left by a step or a half step. The movement must continue in one direction. The number of passing tones that may succeed one another is only limited by the distance which separates the chord tones. Fig. 240.

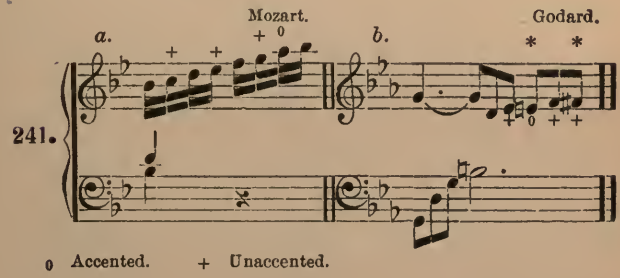


The passing tone may be diatonic or chromatic, accented or unaccented.

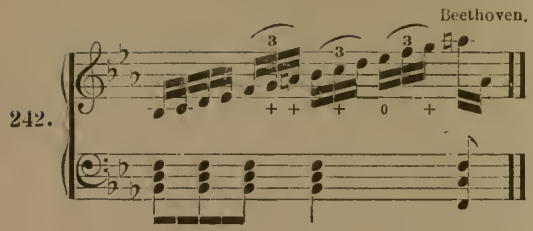
A diatonic passing tone is one that belongs to the key. Fig. 241. *a*.

A chromatic passing tone is one that is foreign to the key. Fig. 241. *b*.

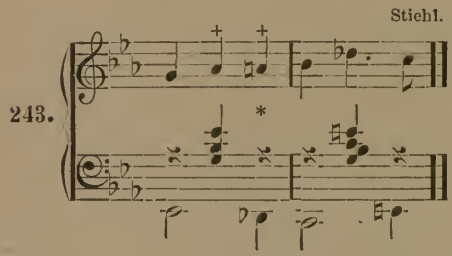
It is accented when it comes on the accented beat or part of a beat, and unaccented when elsewhere. Fig. 241.



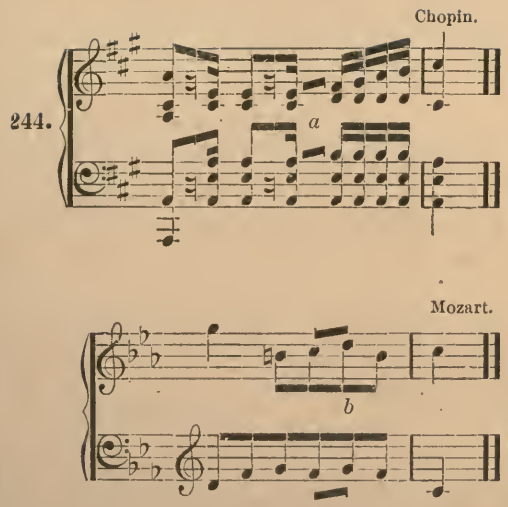
In triple rythm, or in groups of three the passing tone is accented when it is the first note of the measure or group, and unaccented when on the second or third. Fig. 242.



The chord tones between which the passing tone is introduced need not belong to the same harmony. Fig. 243.

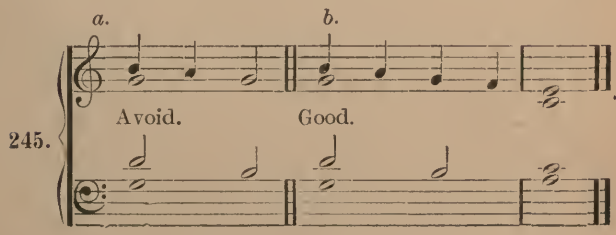


Consecutive perfect fifths, in the progression of a chord tone to a passing tone are good (a). Those in the progression of a passing tone to a chord tone should be avoided (b). While the latter fifths, as well as those in the progression of any non-harmonic tone to a chord tone, are used quite frequently by the masters, the possibility of their misuse by the student is greater, and they are therefore better avoided. Fig. 244.



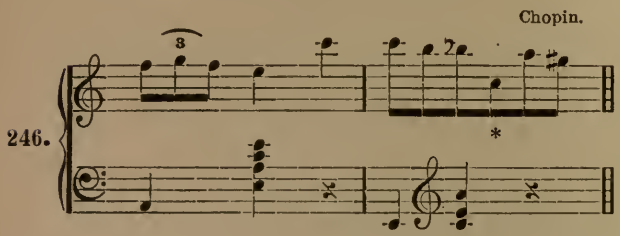
NOTE —Fifths in the progression of a chord tone to a chord tone are *harmonic* fifths, those in the progression of a chord tone to any non-harmonic tone (later lessons), or vice versa, are *melodic* fifths.

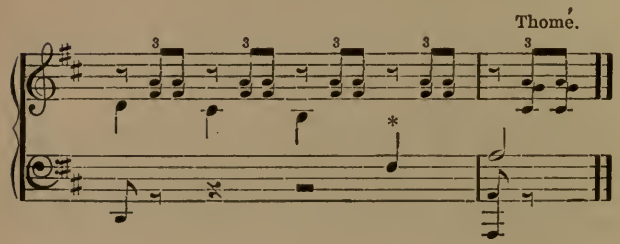
Avoid oblique motion to the unison, but when the moving voice continues through the unison it is good. Fig. 245.



A passing tone instead of progressing directly to its resolution may skip to some other tone of the chord with which it appears, and then proceed to its resolution as at Fig 246.

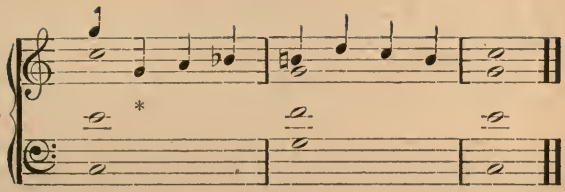
This is similar to the ornamental resolution of the suspension, and will be called ornamental resolution of a passing tone. (Free tone by some writers).





Parts may cross occasionally but should return immediately. Fig. 247.

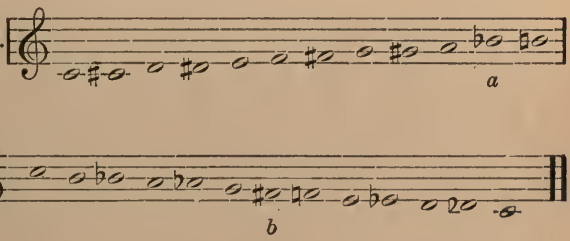
247.



In notating chromatic passing tones all ascending tones are raised, except the sixth degree, instead of which the lowered seventh is used (*a*). In descending all are lowered except the fifth instead of which the raised fourth is used (*b*). Fig. 248.

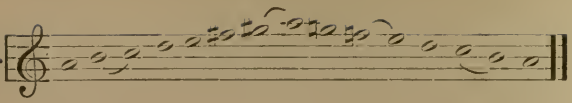
Notating the chromatic passing tones as above forms the chromatic scale as in Fig. 248. Many writers raise all ascending and lower all descending passing tones. The practice of the masters in notating them is, however, far from uniform.

248.



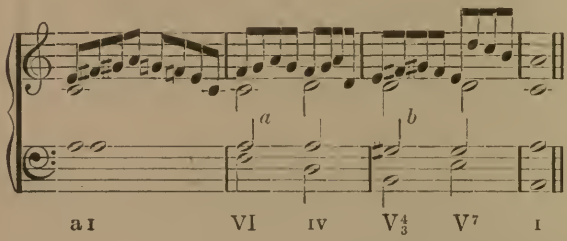
The notation of diatonic passing tones in minor is the same as in the original minor scale, except that in *ascending, only*, the sixth and seventh degrees are raised. This forms the Melodic minor scale as in Fig, 249.

249.



The following are exceptions to the above. In harmonies containing the leading tone as an essential chord tone the *sixth* and *seventh* degrees are raised both ascending and descending (*b*). In harmonies containing the *sixth* degree as an essential chord tone they retain the notation of the original minor scale, both ascending and descending (*a*). Fig. 250.

250.



The reason for raising the sixth degree in harmonies containing the leading tone is to avoid the un-vocal (though not un-melodic) skip of an augmented second which separates six from seven, when only the seventh degree is raised. This augmented second is used by many writers with beautiful effect in both vocal and instrumental music Fig. 251 It is best, however, to avoid its use until more experience is gained in writing

Wagner.

251. *Heart hath sor - rowed*

Schumann.

In cancelling the double sharp, or double flat do as in Fig. 252.

252.

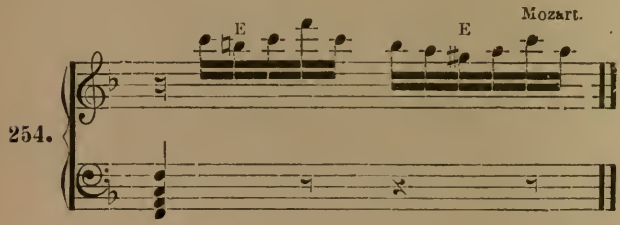
Cross relation between a chord tone and a passing tone is good. Fig. 253.

Schumann.

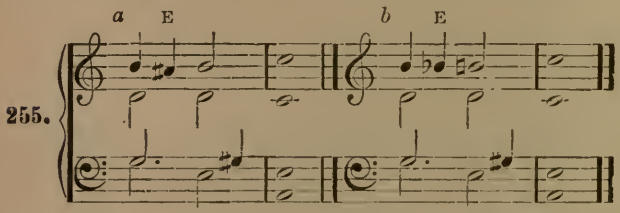
253.

The Embellishment.

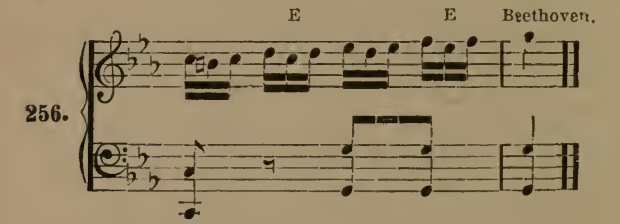
An embellishment is a tone introduced by degree-wise progression between a chord tone and its repetition. It may be accented or unaccented. Fig. 254



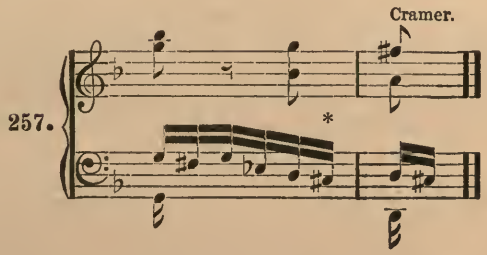
The progression to and from an embellishment should be *diatonic* as at *a*, and *not chromatic* as at *b*. Fig. 255.



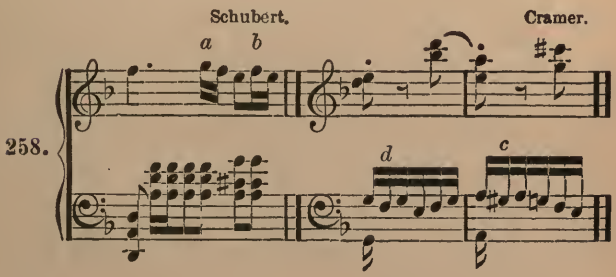
The embellishment is sometimes introduced between a passing tone and its repetition, as at Fig 256, but its use thus would better be deferred.



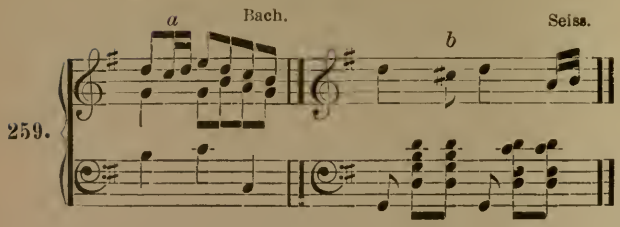
A change of harmony may take place simultaneously with the return from the embellishment, to the principal tone. Fig. 257.



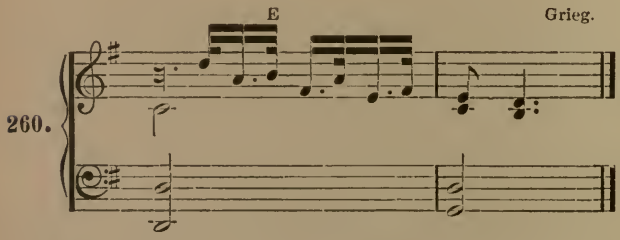
The embellishment, when above the principal tone, may be a whole (*a*), or a half (*b*) step distant; when below, it should be only a half step (*c*), except when it is the ninth of the chord with which it appears (*d*), it may then also be a whole step. Fig. 258.

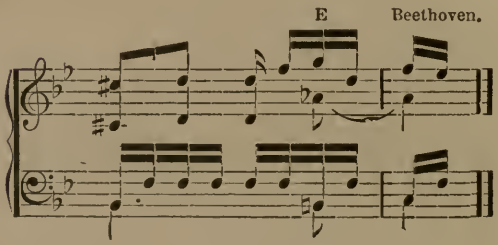


Bach and other old masters often used the embellishing tone a whole step below (*a*), where modern writers would use the half step (*b*). Fig. 259.



The embellishment may resolve ornamentally. Fig. 260. (Free tone by some writers).

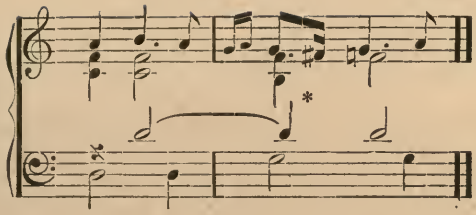




Cross relation between an embellishment and a chord tone is good. Fig. 261.

Chopin.

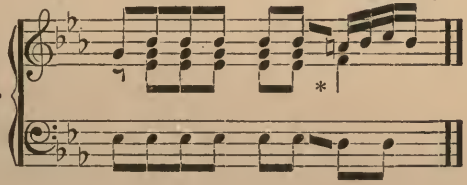
261.



Consecutive fifths in the progression of a chord tone to an embellishment are good. Fig. 262. (See note under Fig. 244).

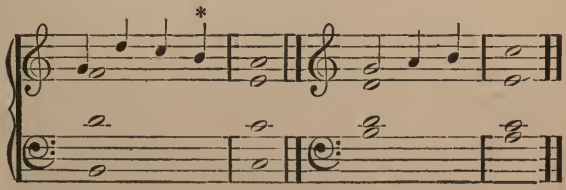
Mozart.

262.



Any interval of a chord may be doubled or omitted after the first beat. Avoid doubling the seventh of a chord immediately before a change of harmony. When the leading tone is doubled immediately before a change of harmony the new leading tone should be treated as a passing tone and both left degreewise in contrary motion. Fig. 263.

263.



The passing tone and embellishment may be used in two or more voices but this is better deferred until Lesson LXXVII.

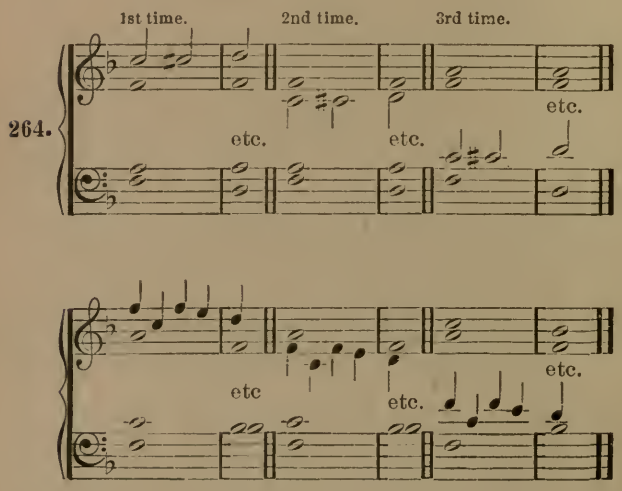
Harmonize exercises *a* and *b* three times with continuous movement of half notes in one part. With each writing put the half notes, in turn, in the soprano, alto, and tenor as in Fig. 264. Also harmonize exercise *c* as directed above putting four quarter notes in a measure.

The movement is made continuous by the use of passing tones, embellishments and chord tones.

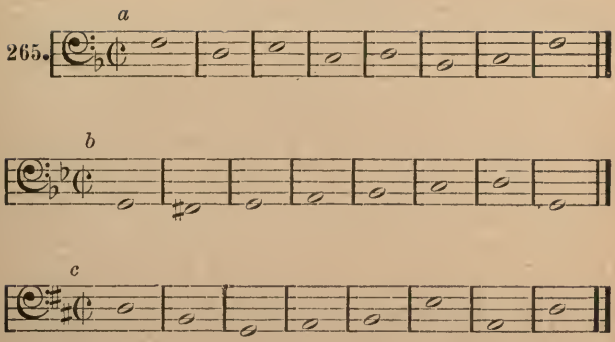
Avoid frequent skipping.

Make occasional use of the ornamental resolution of the passing tone and embellishment.

Indicate all non-harmonic notes with their proper abbreviations in this lesson as well as in Lessons LXXIII, LXXIV and LXXV.



EXERCISES.



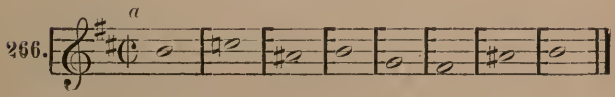
Lesson LXXIII.

The Passing tone and Embellishment (con).

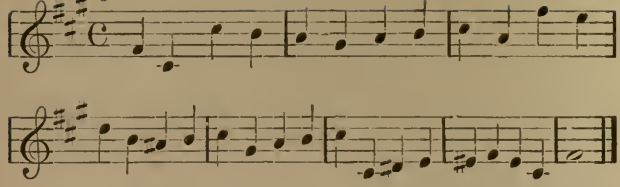
Harmonize the following exercises. In *a* put four quarter notes in a measure in the bass. In *b* and *c* use only one harmony in a measure and account for the notes in the melody as passing tones, embellishments or chord tones.

Harmonize *d* and *e* as elaborately as desired.

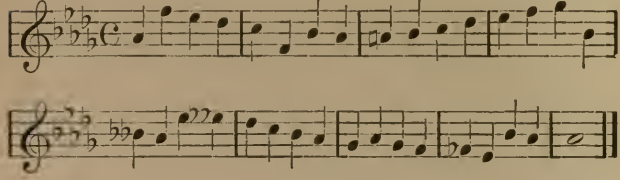
EXERCISES.



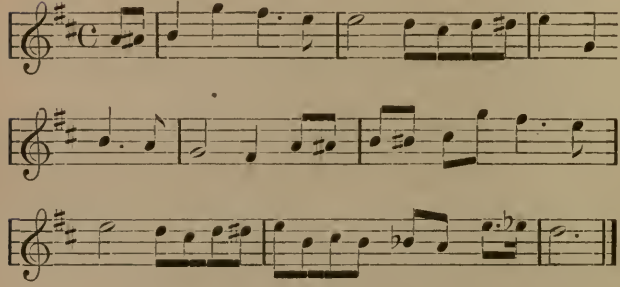
b



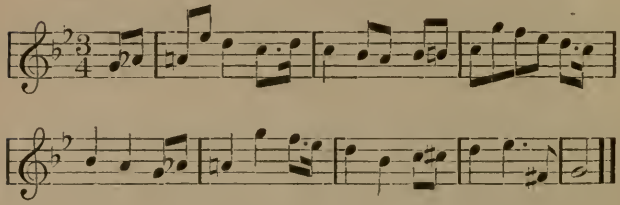
c.



d.



e.

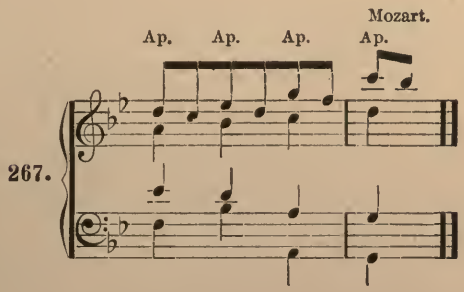


Lesson LXXIV.

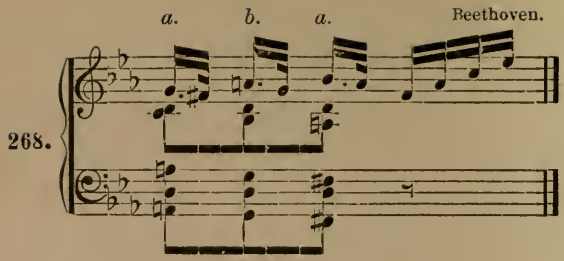
The Appoggiatura and the Anticipation.

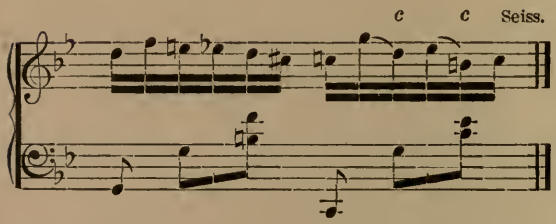
The Appoggiatura.

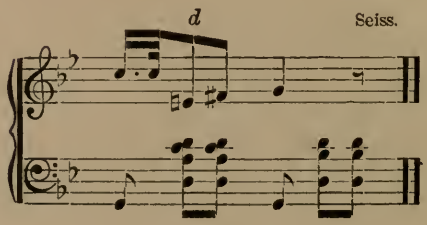
The Appoggiatura is an unprepared suspension that is approached by a skip of an augmented second or more. Fig. 267.



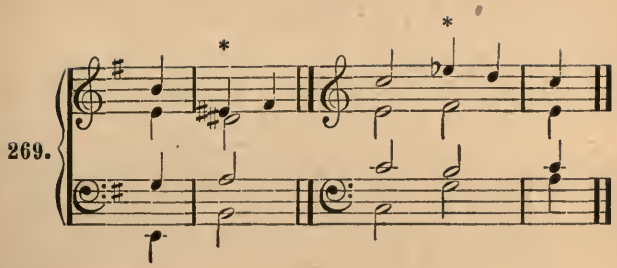
The appoggiatura may be in any voice but is most often used in the soprano. When used in any other part it is usually accompanied by an appoggiatura in the soprano. Fig. 272. The distance which separates an appoggiatura from its resolution is the same as that of the embellishing tone, i. e., when it proceeds to the note of resolution from above, it may be by either a half (*a*), or a whole step (*b*), when from below it should be a half step (*c*), except when it is the ninth of the chord with which it appears, it may then also be a whole step. Fig. 268.



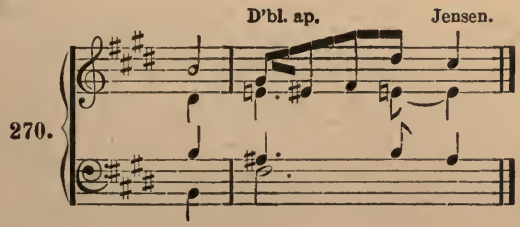


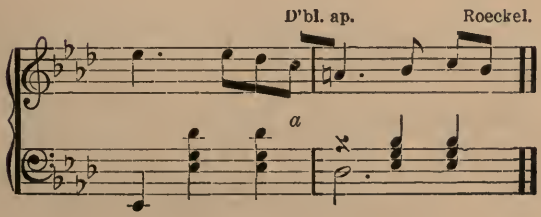


The progression of an appoggiatura to its resolution should be *diatonic*. Fig. 269.

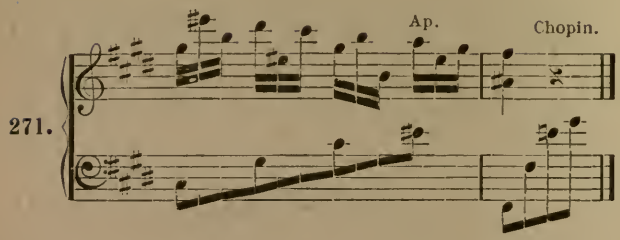


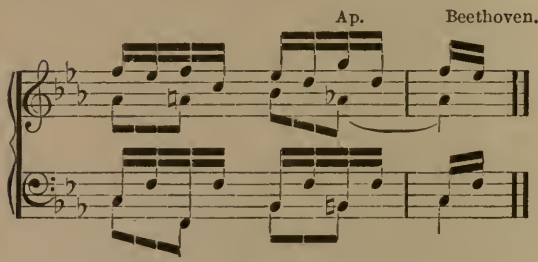
The double appoggiatura is formed by taking both neighbors of a chord tone immediately before the chord tone itself. The first of these is often the last note of the preceeding measure or beat (*a*), and need not be approached by a skip. Fig. 270.



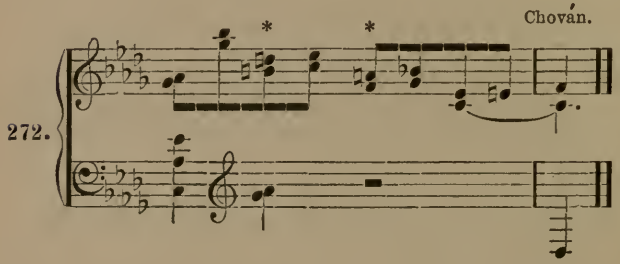


The appoggiatura may resolve ornamentally. Fig. 271.

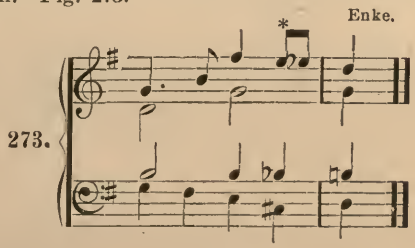




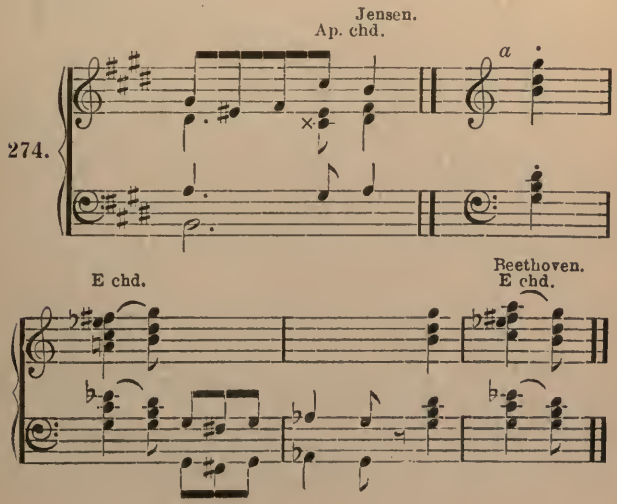
The appoggiatura may be used in two or more voices simultaneously. Fig. 272.



With the appoggiatura as with the suspension, a change of harmony may take place simultaneously with its resolution. Fig. 273.



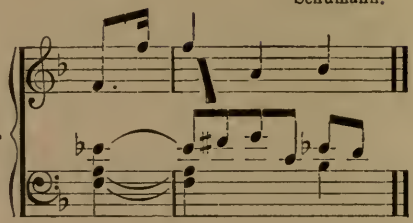
A combination of non-harmonic tones having as its soprano an appoggiatura or an embellishment is respectively, an appoggiatura or an embellishing chord. These tones need not be harmonically related but it is better to have them so. Fig. 274.



Cross relation between a chord tone and an appoggiatura is good. Fig. 275.

Schumann.

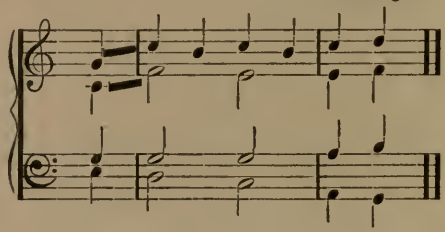
275.



Consecutive perfect fifths in the progression of a chord tone to an appoggiatura are good. Fig. 276. (See note under Fig, 244).

Rheinberger.

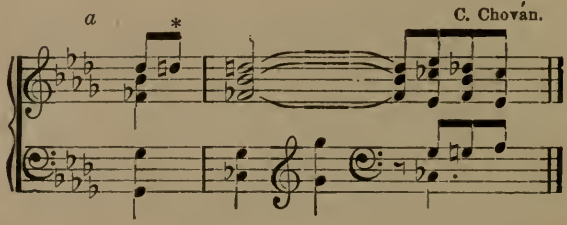
276.

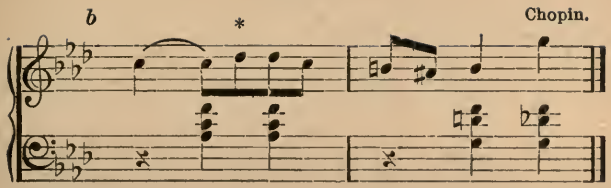


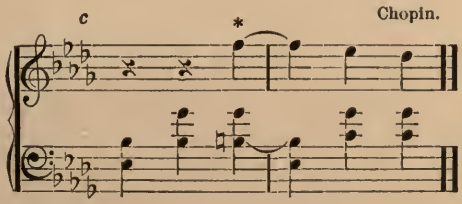
The passing tone (*a*), embellishment (*b*), and appoggiatura (*c*), may be used as preparation of a suspension or retardation. Fig. 277.

C. Chován.

277.

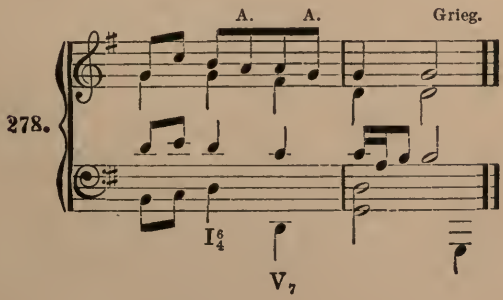




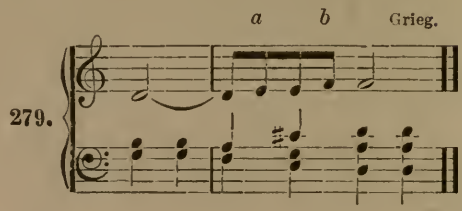


THE ANTICIPATION.

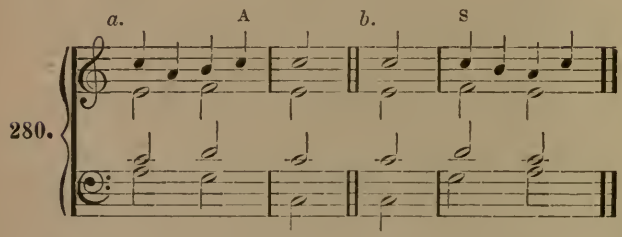
The Anticipation is a chord tone introduced immediately before the entrance of a chord to which it belongs. Fig. 278.



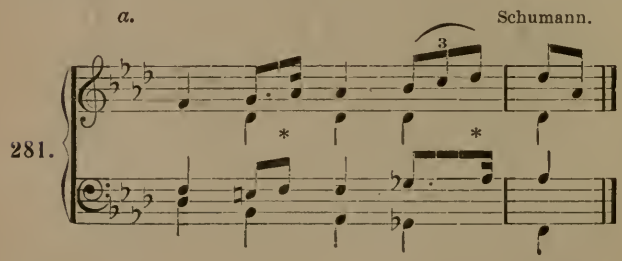
The anticipation should be as short (*a*), or shorter (*b*) than the tone to which it proceeds. Fig. 279.

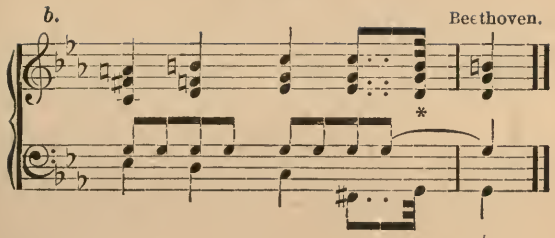


The anticipation is the opposite of the suspension. Fig. 280.

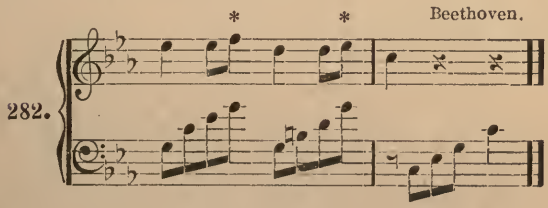


Two or more anticipations may be used simultaneously. Fig. 281.

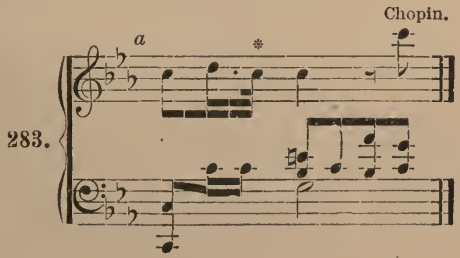


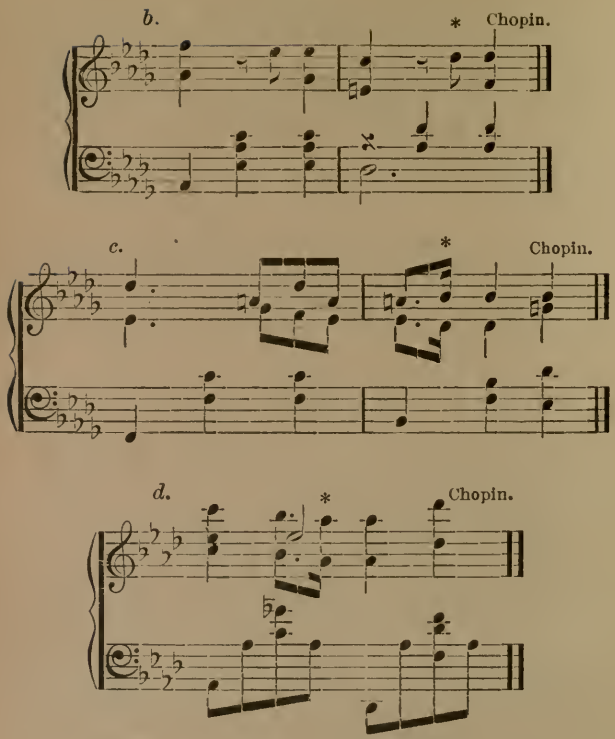


When the anticipation instead of remaining stationary skips to some other tone of the chord to which it belongs, it is a free anticipation. Fig 282.



When in the progression of a non-harmonic tone to its resolution, the note of resolution is taken before its expected time, this note is also an anticipation. Fig. 283.



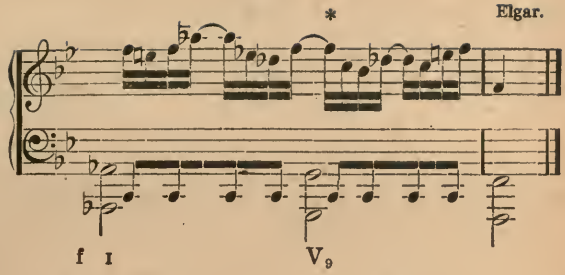


Anticipating the resolution of: *a* the embellishment.
b " appoggiatura.
c " suspension and retardation.
d " passing tone.

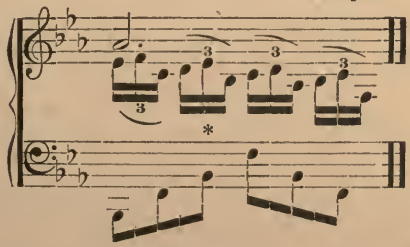
Non-harmonic tones that are left by a skip but do not resolve ornamentally, are free tones Fig 284. The use of these is so infrequent, and the problem of using them musically so difficult that the student is asked not to use them.

284.

Elgar.



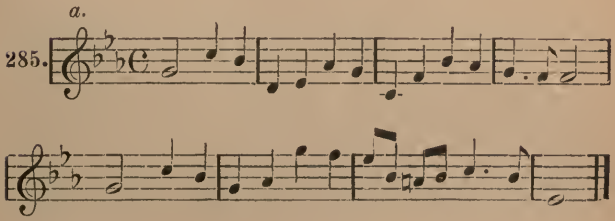
Chopin.



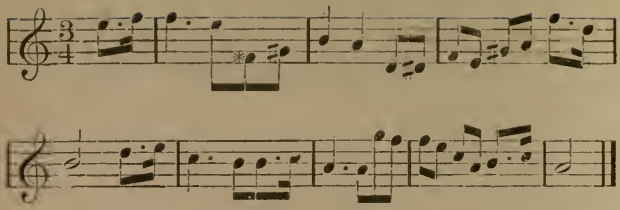
The following exercises should be harmonized without the use of the ornamental resolution of non-harmonic tones, or the anticipation of their resolutions. Opportunity for this will be given in the next lesson.

EXERCISES.

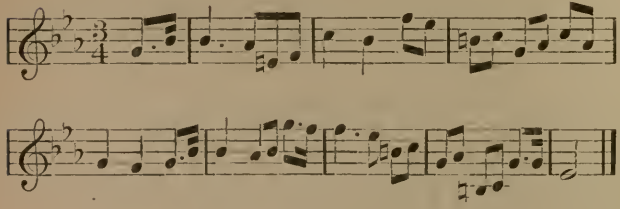
285. *a.*



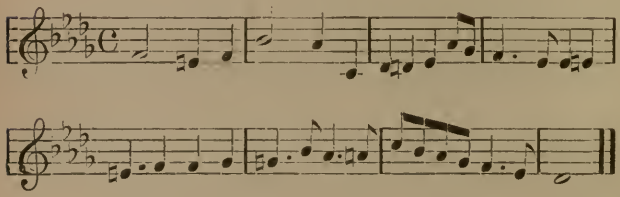
b.



c.



d.

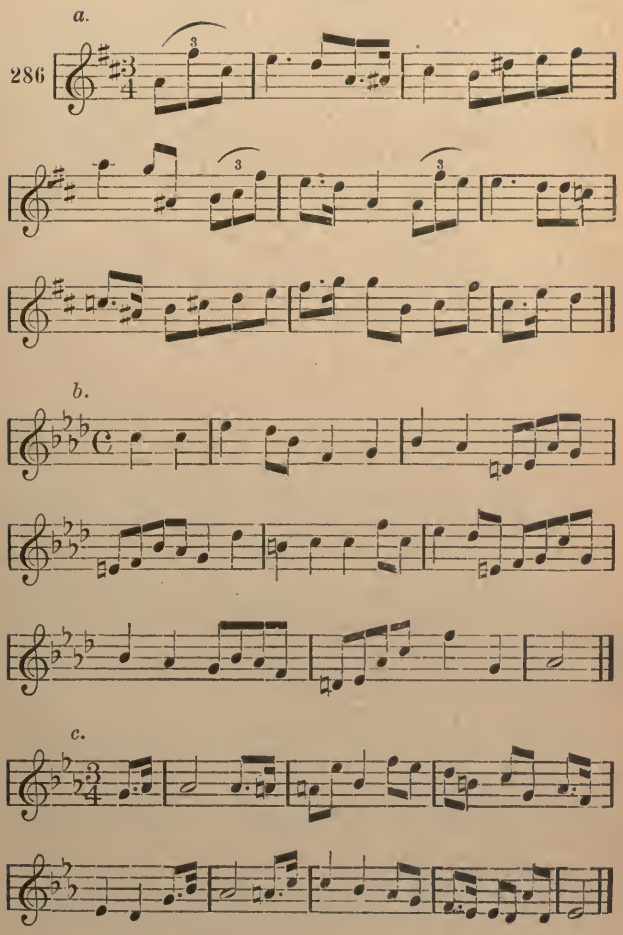


Lesson LXXV.

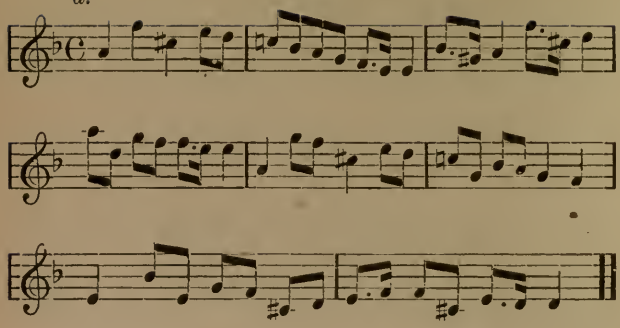
The Appoggiatura and Anticipation (con.)

In the following exercises opportunity is given to use the ornamental resolution of the different non-harmonic tones, and also the anticipation of their resolutions.

EXERCISES.



d.



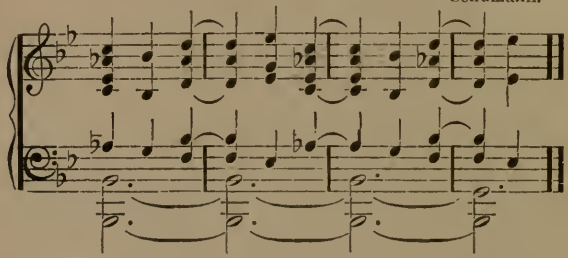
Lesson LXXVI.

Pedal Point (Organ Point).

A Pedal Point is a tone sustained through a succession of harmonies to which it may, or may not belong. This tone is usually in the bass. Fig. 287.

Schumann.

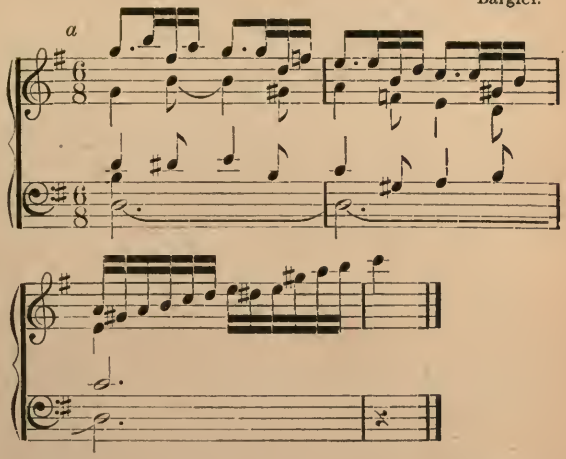
287.



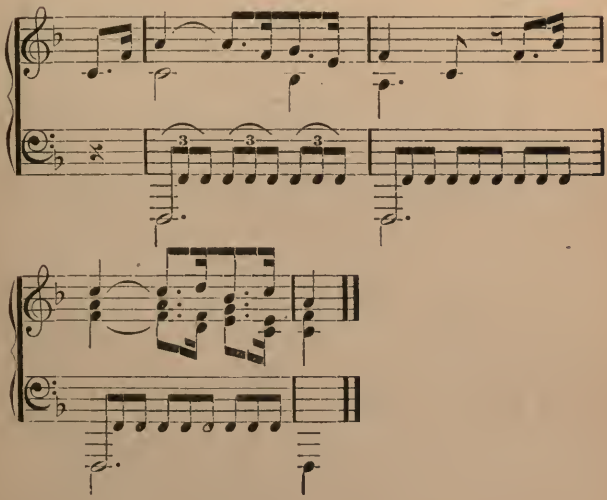
Any tone may be treated as a pedal point, but the dominant (*a*) is the most frequently used, and next to this the tonic (*b*). Fig. 288.

Bargiel.

288. *a*

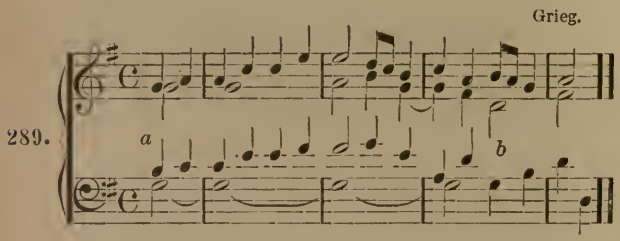


b. Beethoven.



While the following directions hold good for the pedal point on any degree, these lessons will be confined to the use of the dominant and tonic pedal point only.

The pedal point usually begins (*a*) and ends (*b*) with a chord of which it is a member. Fig. 289.



The progression of the harmonies accompanying a pedal point is made as if no pedal point were present except that in their selection it is well to make a frequent use of chords containing the pedal point as a chord tone When the pedal point is in an upper voice this is particularly desirable. In the progression of harmonies not containing the pedal point, it is advisable to use degreewise progression as much as possible.

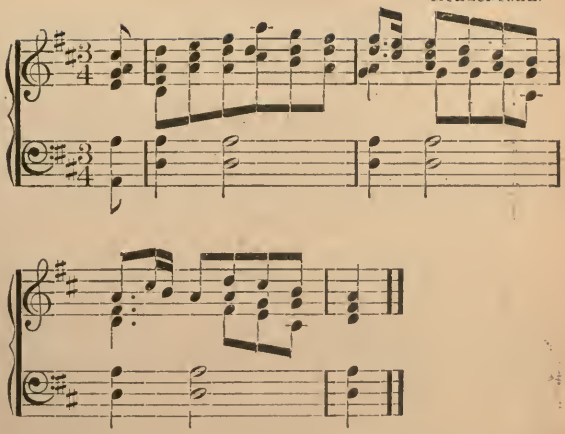
The dominant seventh with the fifth omitted and the diminished seventh with third or fifth omitted may be used when accompanying a pedal point.

When the pedal point is in the lowest voice the part above it is the real bass.

The tonic and dominant may be used simultaneously as a pedal point forming a double pedal point. This is most used when writing in five or more parts. Fig. 290.

Mendelssohn.

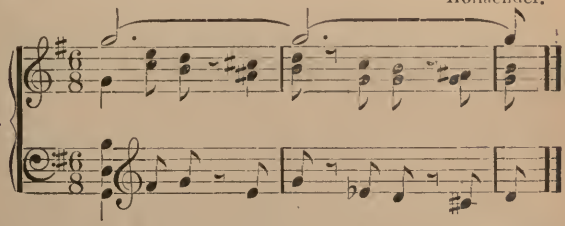
290.



The pedal point in an upper voice (inverted pedal), especially in the soprano is used quite frequently. For this no special directions are necessary. Fig. 291.

Hollaender.

291.



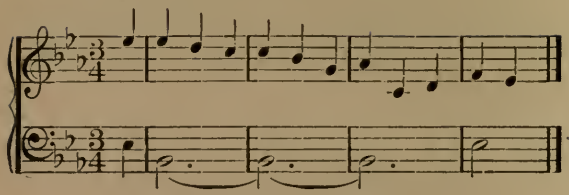
The pedal point need not be tied, but may be separated for rhythmical effect, or to sustain the tone as in Figs. 288 *b* and 290.

Harmonize the following exercises adding the parts as indicated.

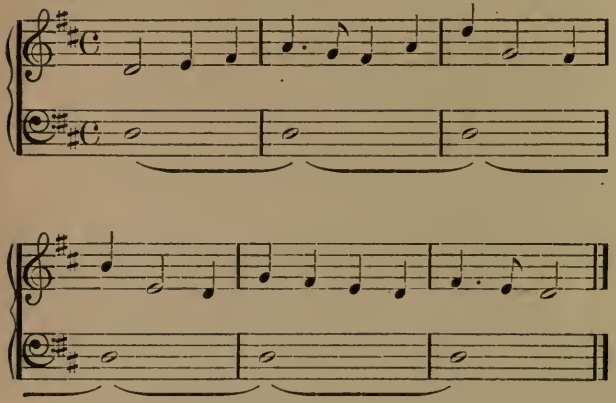
EXERCISES.

a. Add alto and tenor.

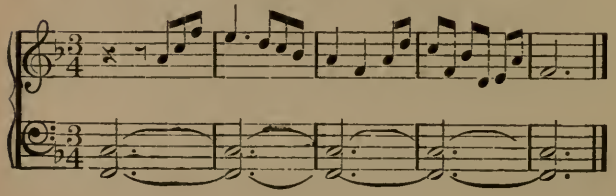
292.



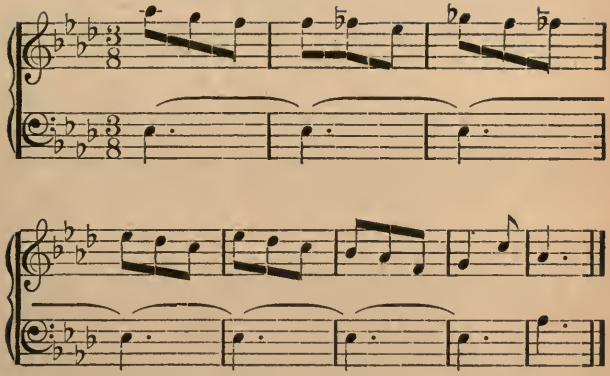
b. Add alto and tenor.



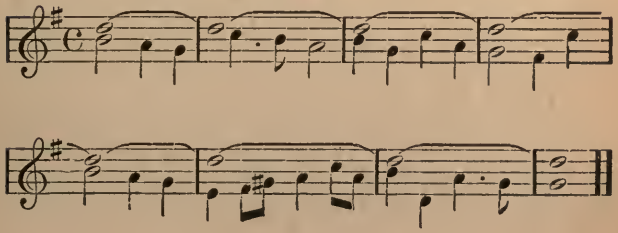
c. Add two inner parts.



d. Add alto and tenor.



e. Add tenor and bass.



Lesson LXXVII.

Figuration.

Figuration of the parts accompaning a melody.

Figuration is the elaboration of any part by the introduction of tones, harmonic or non-harmonic. Fig. 293.

a. Original.

293.

b. Figuration.

Bach.

The entry of chord tones may be anticipated or delayed by non-harmonic tones. Compare *a* and *b* of Fig. 294.

a.

294.

b.

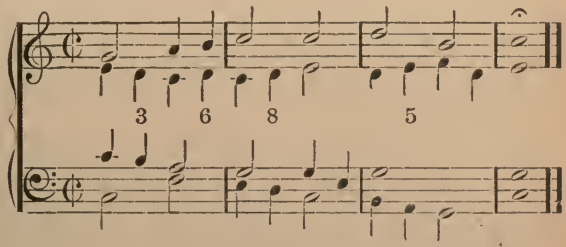
Ap. E An.

S

The figuration *as a whole* should give a continuous movement of quarter notes, but no voice should use them continuously for more than two measures.

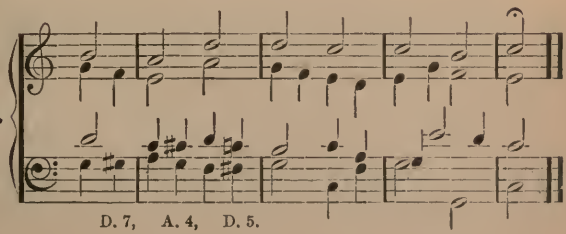
In figurating two parts simultaneously care should be taken that the two notes appearing in the figuration at the same time should form a major or minor third or sixth, or a perfect fifth or octave. When the octave or fifth is used both tones of the interval should be treated as passing tones. Fig. 295.

295.



The diminished fifth and seventh, and the augmented fourth may also be used if properly resolved as in Fig. 296.

296.



While the figuration of three and four voices simultaneously is much used these lessons will confine themselves to figurating not more than two voices simultaneously.

Avoid frequent use of the chromatic passing tone.

Use degree progression as much as possible.

The parts under the hold (𝄐) should not be figurated.

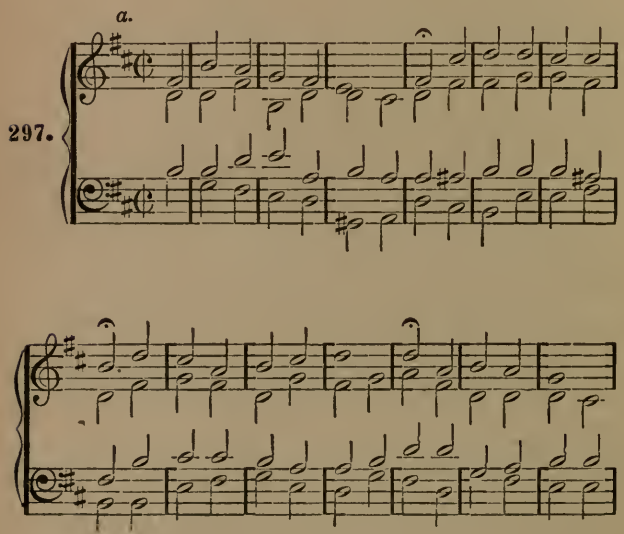
An analysis of the Bach Chorals will greatly assist in writing musical solutions of the following exercises.

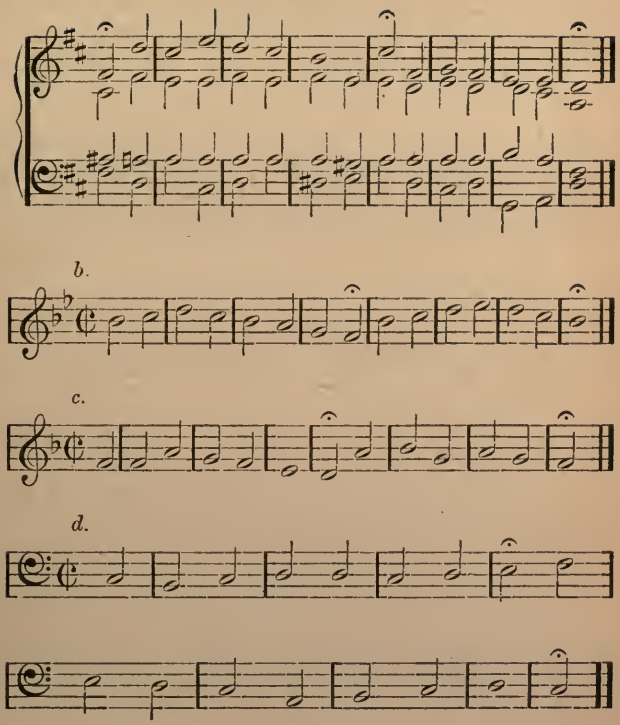
Figurate 297*a* with quarter notes in all parts except the soprano.

Harmonize 297*b* and *c* and figurate as directed above.

Use 297*d* as the bass, harmonize, and figurate the alto and tenor only. Make the soprano a good choral melody

Exercise care in cadencing at the end of the lines. Notice whether the lines close in the tonic key or have modulated.





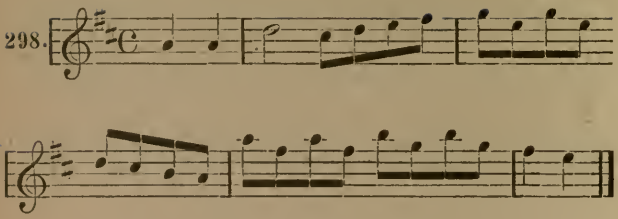
Lesson LXXVIII.

Figurated Melodies.

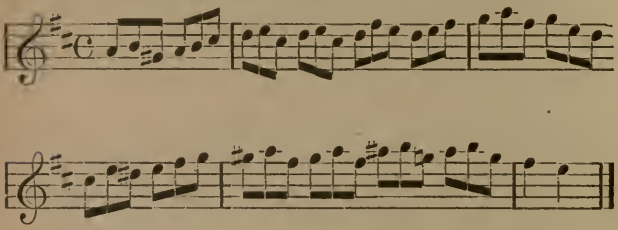
A simple melody may be figurated, the figuration in the present lesson consisting of a continuous movement of notes of *equal* value Fig. 298 Figurated melodies of this kind are usually found in the "Theme and Variations."

a. Original melody. Mozart.

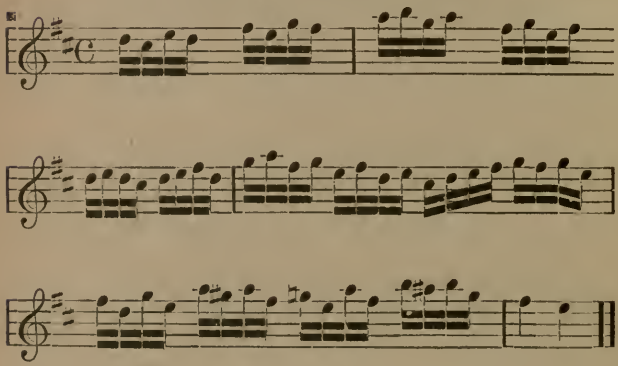
298.



b. Figuration. Three notes to the beat.



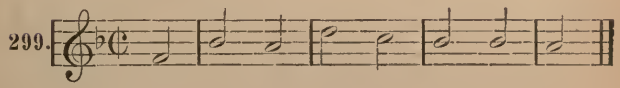
c. Another figuration. Four notes to the beat.



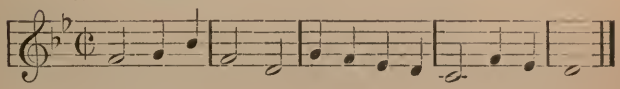
It is necesssary to figurate the theme in such a way that the original theme is easily recognized. The following directions may assist the student in this. The notes of the original melody should appear in their same relative position in the figuration, unless temporarily displaced by a non-harmonic tone. After treating a tone of the melody in this manner, anything that can be justified may be written between it and the next melody note. While the student is thus held more strictly to the original theme than is customary with the masters, these directions will however serve as a guide until he can decide for himself what deviations from the original theme are good.

EXERCISES.

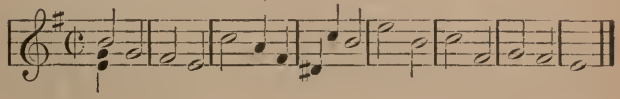
299. *a.* Two notes to a beat



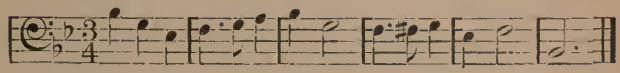
b. Three notes.



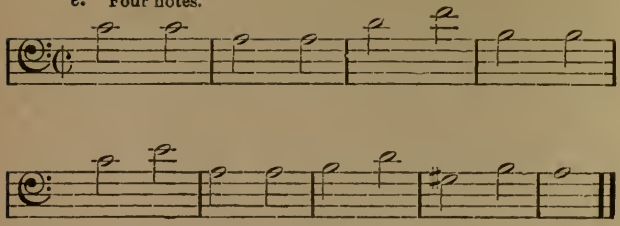
c. Four notes.



d. Three notes.



e. Four notes.



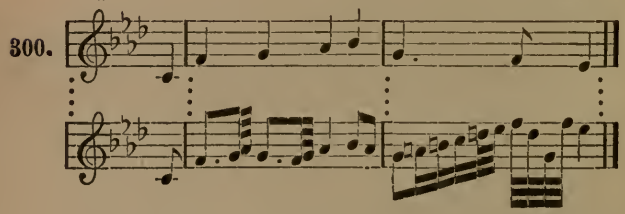
Lesson LXXIX.

Florid Figuration.

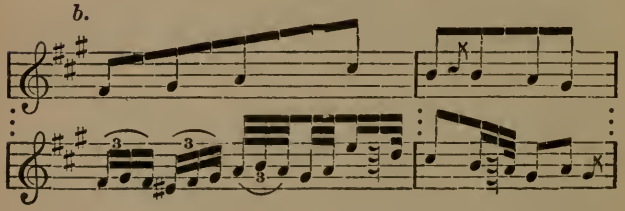
A simple melody may also be figurated with notes of unequal value, and may then be called Florid melody. Fig. 300.

a. Bach.

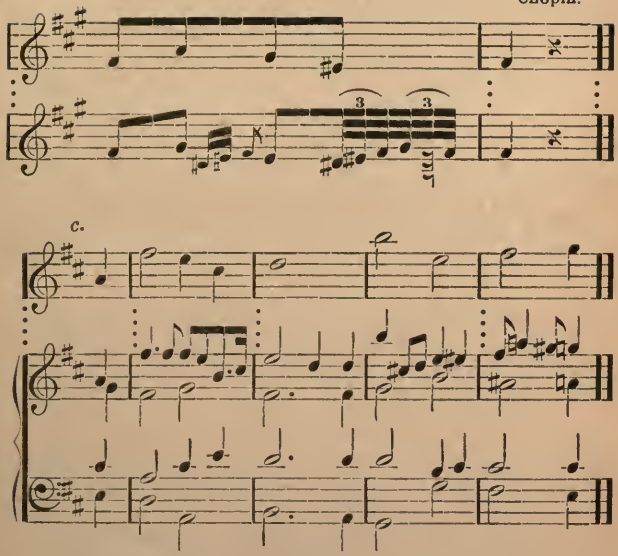
300.



b.



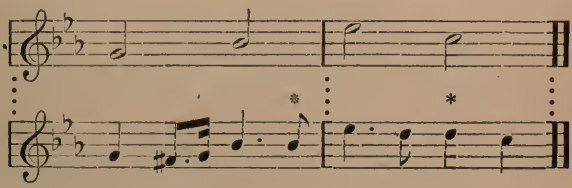
Chopin.



In a figuration of this kind a strict adherence to the suggestions for figurating with notes of equal value is not necessary, i. e., the position of the important notes in the original melody need only be approximated in the figuration.

Repetition of a note when it has decided rhythmic value is good. Fig. 301.

301.



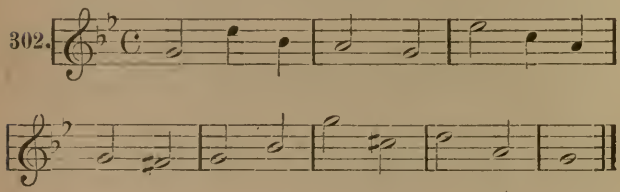
Before figurating the following exercises a careful analysis of Fig. 300 will prove helpful. Fig 300*c* is a solution of the first four measures of exercise 302*b*

Harmonize the following exercises and treat with florid figuration.

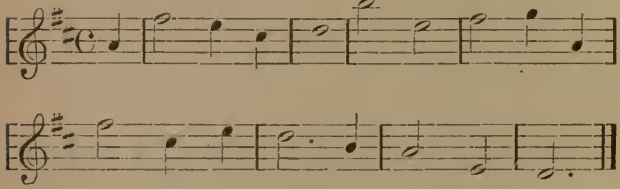
EXERCISES.

a.

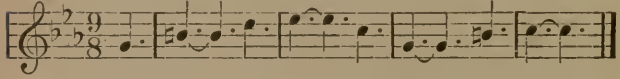
302.



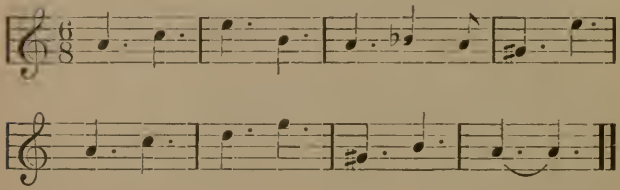
b.



c.



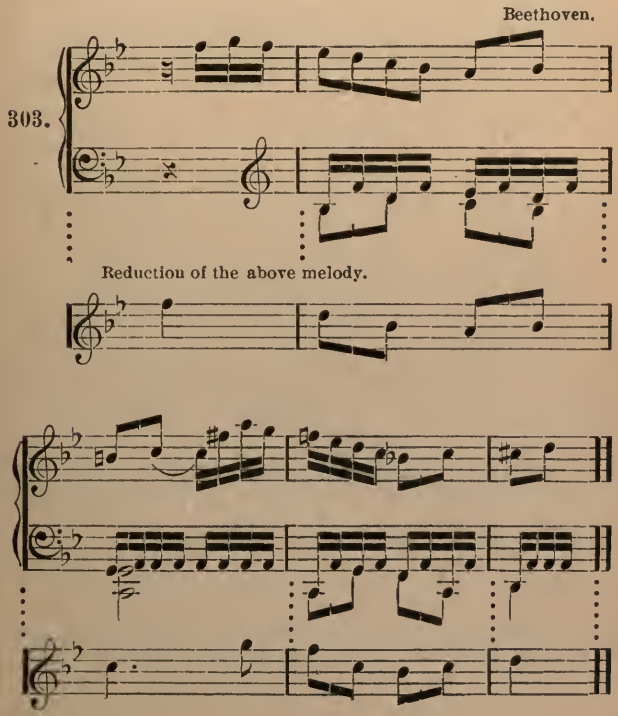
d.



Lesson LXXX.

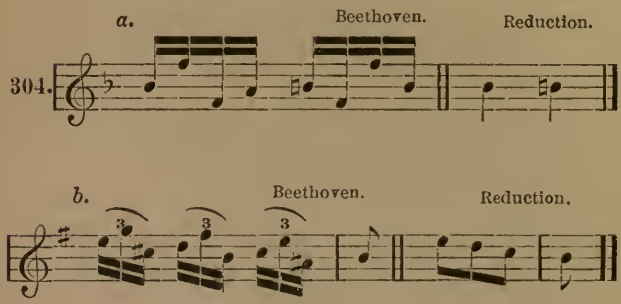
Reduction of Melodies.

To reduce a melody is to eliminate all non-harmonic and unessential chord tones, retaining only those chord tones necessary for a simple and clear harmonization. Fig. 303.

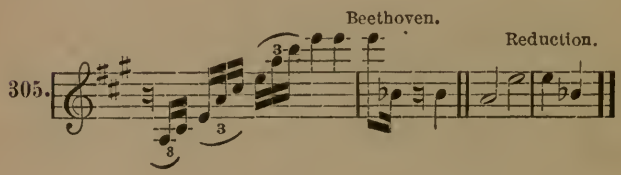


In reducing it is necessary to write out or have in mind a harmonization of the original melody. All tones not belonging to the chords with which they appear should be removed.

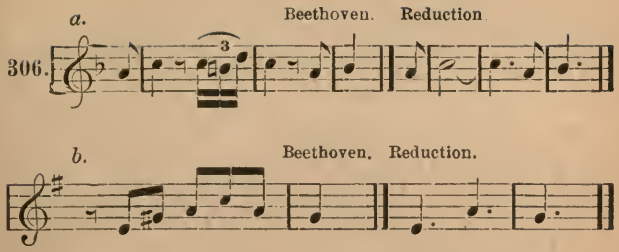
In broken chord effects as in Fig. 304 retain only those tones necessary to give an outline of the melody.



When the melody exceeds the limits of four part writing raise or lower the reduction so as to come within the usual compass. Fig. 305.

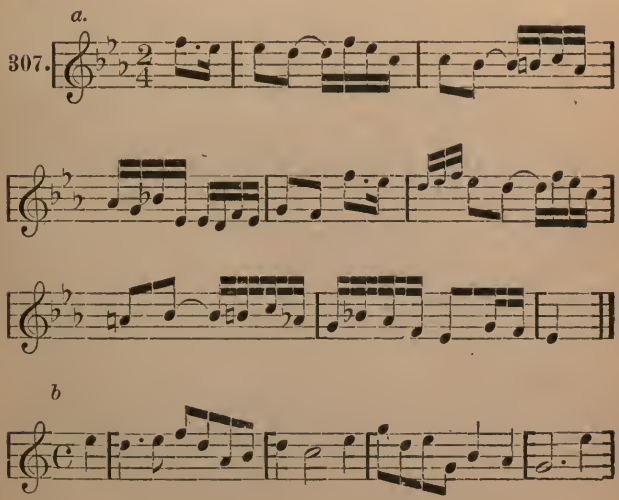


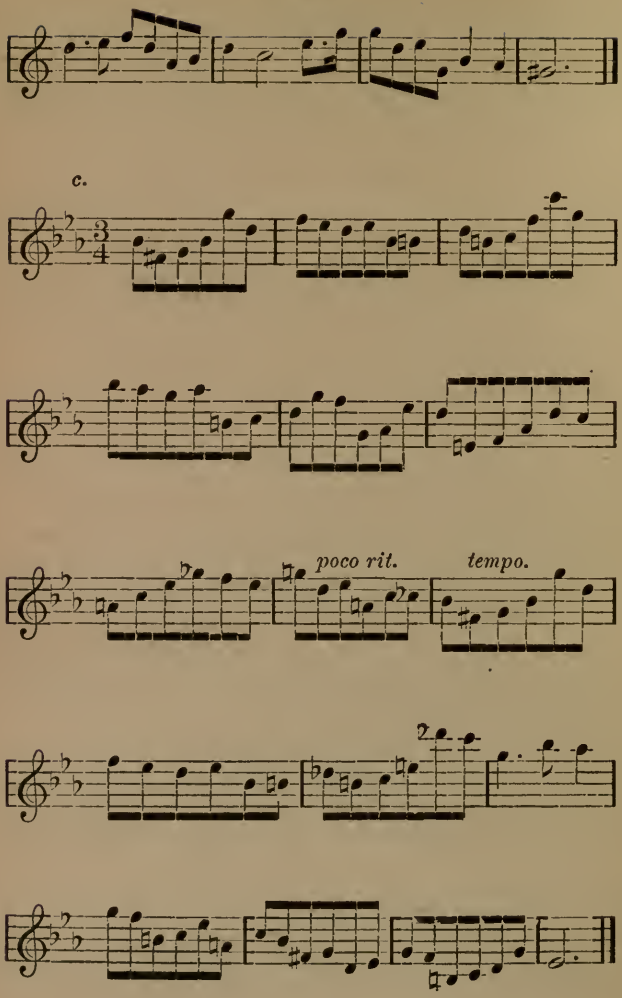
A rest which clearly takes its time value from the note that precedes or succeeds it, is not recognized in the reduction. Fig. 306.



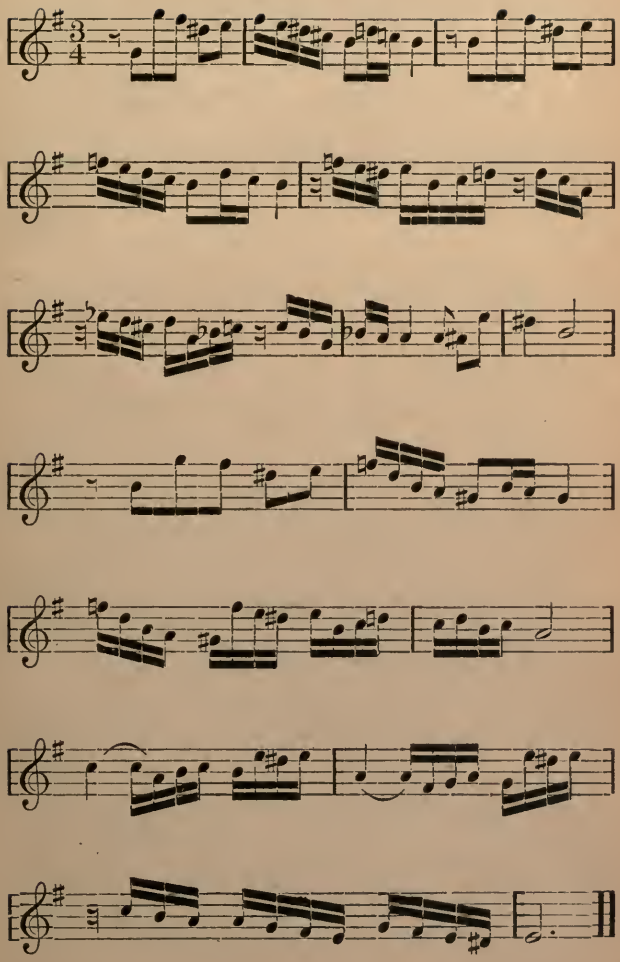
Write two solutions each of the following melodies. First reduce and harmonize as simply as possible; and then harmonize the unreduced melodies as elaborately as desired.

EXERCISES.




c.
poco rit.
tempo.

d.



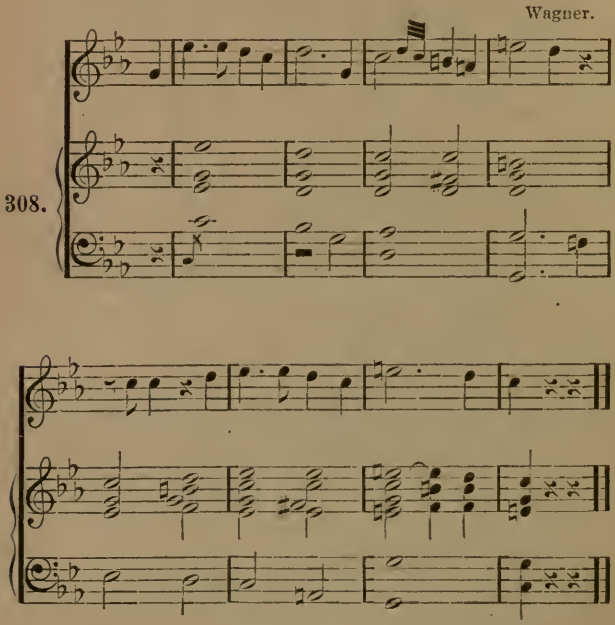
Lesson LXXXI.

Florid Melody.

In Lesson LXXIX the Florid Melody was constructed by elaborating a simple melody. In this lesson a succession of harmonies is given over which, on a separate staff, a melody is written that has as its harmonic basis the chords over which it appears. This allows more freedom, and affords the student greater opportunity to display his creative ability. Fig. 308.

Wagner.

308.

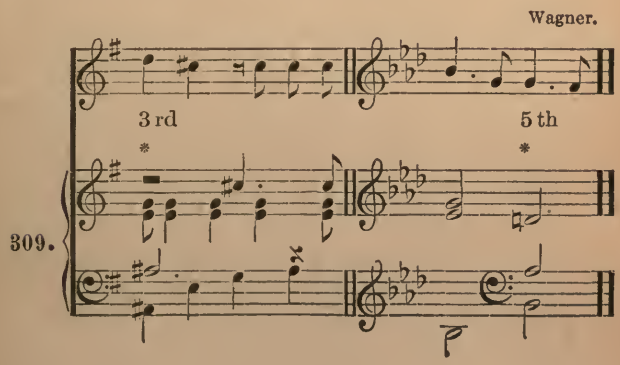


The relation of the melody to the harmonies is the same as that of a solo, vocal or instrumental, to its accompaniment.

All the material of the previous lessons may be used.

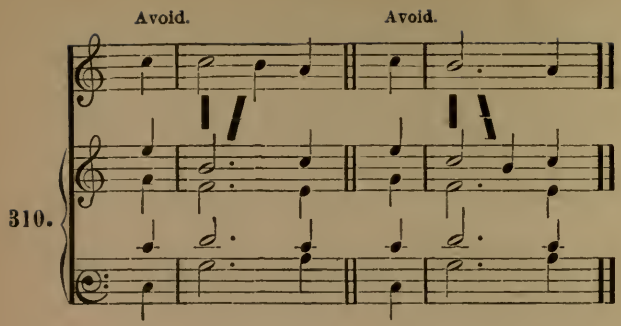
Consecutive octaves are permitted between the melody and any part in the harmonies except the lowest. Those between the lowest part and the melody are often found in the works of the masters but are better avoided here.

Any interval of an accompanying chord may be omitted provided it is present in the melody. Fig. 309.



Any interval may be doubled between the melody and harmony.

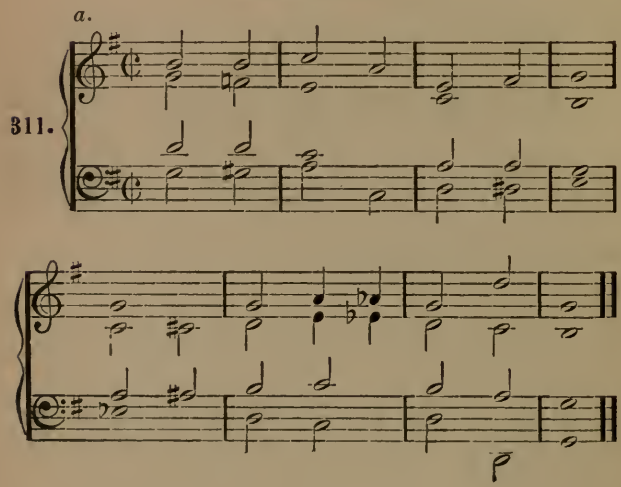
The resolution of a second to a prime between the melody and any part in the harmony is to be avoided. That of a ninth to the octave is good. Fig. 310.



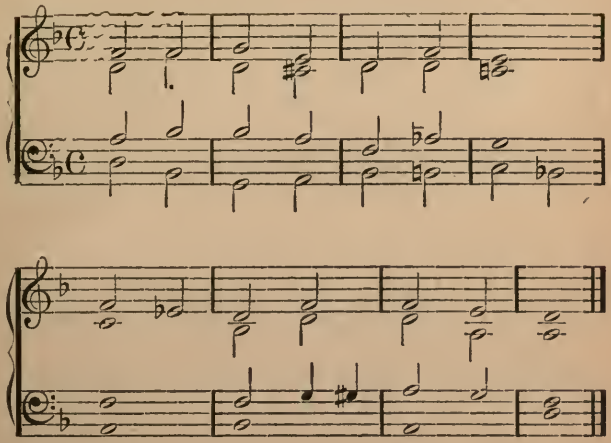
Essential intervals omitted in the chord should be supplied in the melody.

Write several melodies to each of the following exercises.

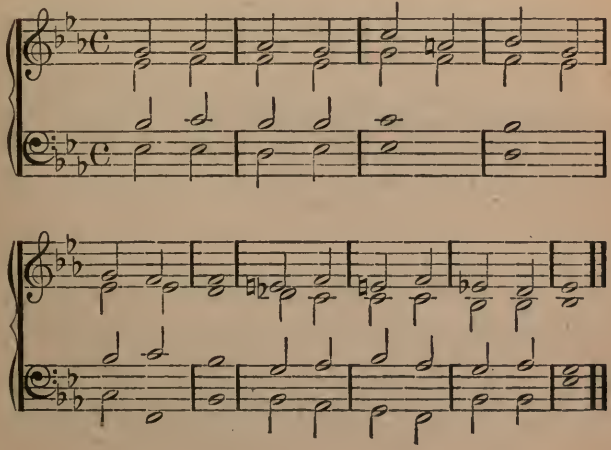
EXERCISES.



b.



c.

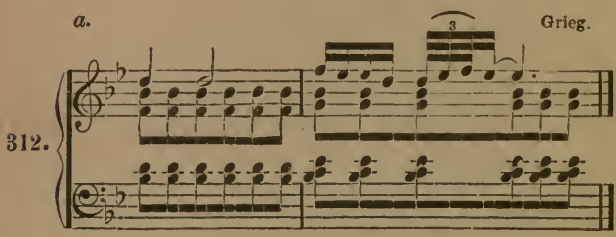


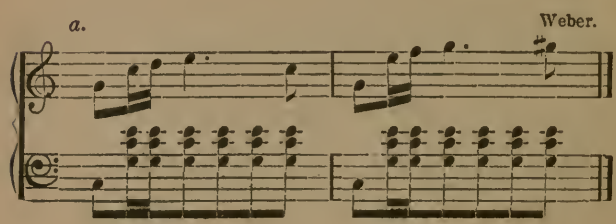
Lesson LXXXII.

Accompaniment.

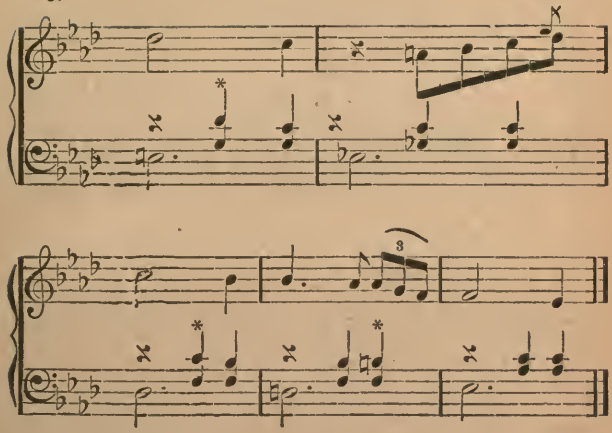
An accompaniment is formed by adding one or more parts to a melody for the purpose of re-enforcing it, or enhancing its beauty by harmonic, melodic or rhythmic support.

It is to be observed that the greater number of accompaniments are based either on a repetition of harmonic figures *a* (which may be accompanied by non-harmonic tones *b*, or a melodic figure *c*), or broken chord effects (*d*) (which may be accompanied by non-harmonic notes *e*.). Fig. 312.

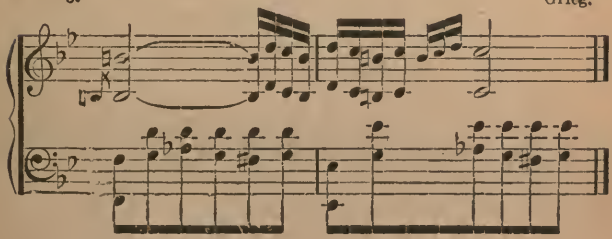




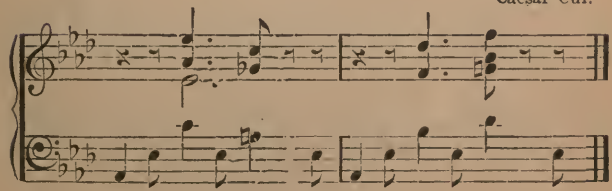
b. Chopin.



c. Grieg.



d. Caesar Cui.



d.

Nicodé.

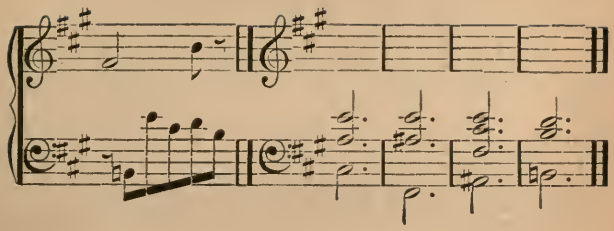
e.

Leschetizky.

The progression from one chord to the next should be made as if all notes were sounded simultaneously and sustained throughout that chord. Fig. 313. While this is disregarded in many instances by the masters, it is nevertheless found to be their general practice.

Aleneff.

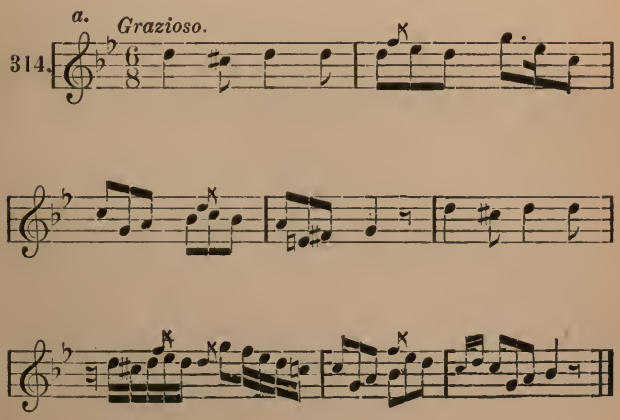
313.



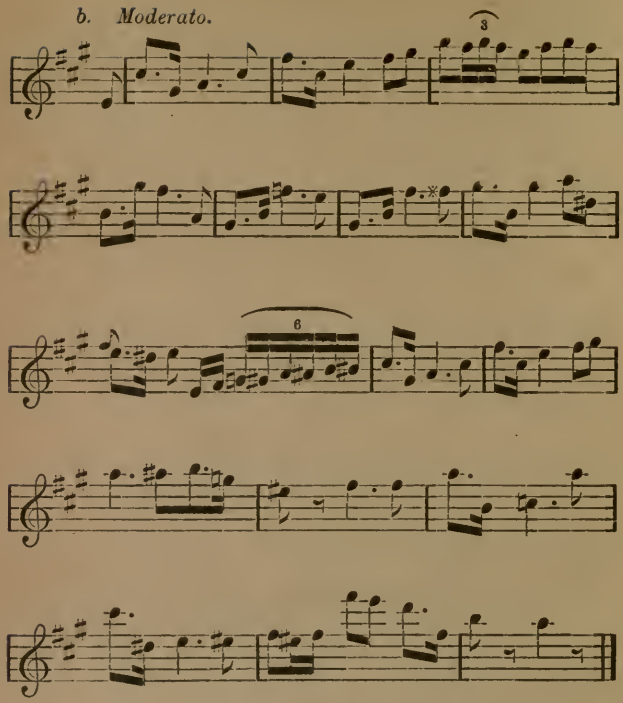
It may be well to write the harmonies under the melodies as in Lesson LXXXI and then transcribe into the style of accompaniment desired.

The following exercises may be divided into two lessons.

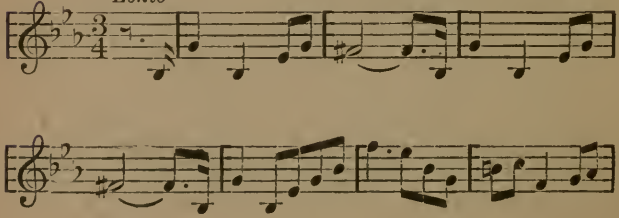
EXERCISES.

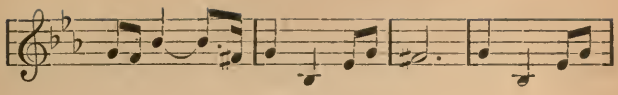


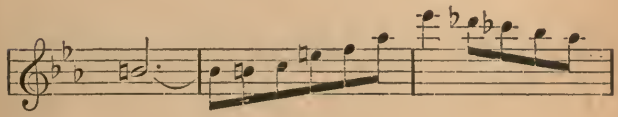
b. Moderato.

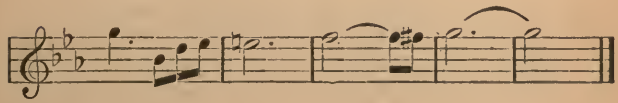


c. Lento

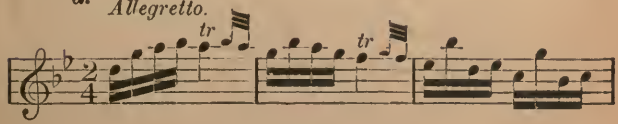


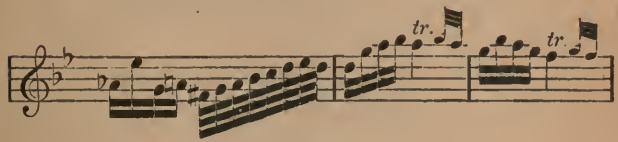


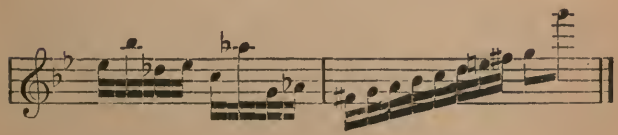


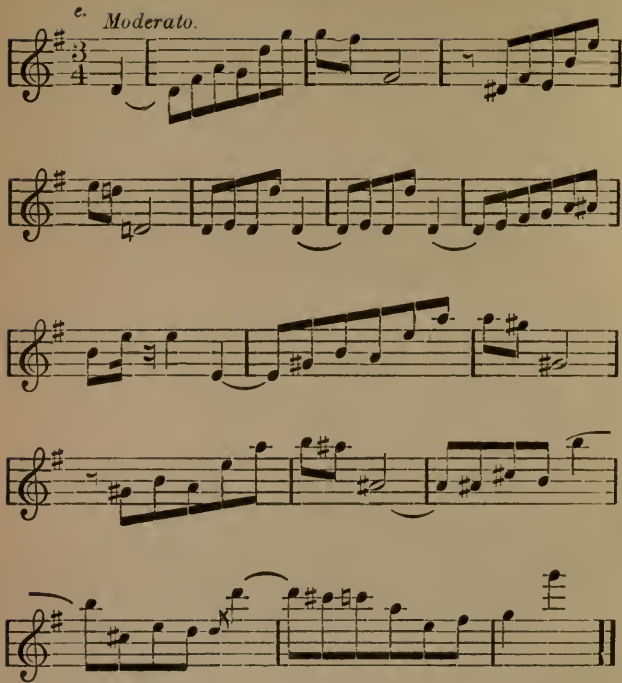


d. *Allegretto.*









Lesson LXXXIII.

Additional Work.

If it is desired to do further work, the principles of the foregoing lessons may be incorporated in writing eight and sixteen measure periods for either piano or voice, also some of the primary forms. It is left to the direction of the teacher to outline the above forms.

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